(2nd) 3/16/06





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March 16, 2006

### VIA HAND DELIVERY

Elisa S. Feldman
U.S. Department of Justice
Environmental and Natural Resources Division
Environmental Enforcement Section
P.O. Box 7611
Washington, D.C., 20044-7611

Re: EaglePicher Holdings, Inc., et al., No. 05-12601 (Bankr. S.D. Ohio)

Dear Elise:

In response to your informal discovery requests in the above referenced bankruptcy proceeding of EaglePicher Holdings, Inc., and certain of their affiliates ("Debtors"), we are providing you a second round of documents to supplement yesterday's production. Debtors are producing these documents subject to Rule 408 and other laws regarding settlement and offers of compromise.

You will find enclosed a disc containing documents relative to several properties that are proposed for inclusion in the custodial trusts under EaglePicher's First Amended Joint Plan of Reorganization. The disc contains documents bates-numbered IL-000001 to 000016, which represent information and materials related to the Galena, Illinois site. These documents will be provided to James Morgan of the Illinois Office of Attorney General. Also on the enclosed disc are documents bates-numbered MI-000001 to 0000973, which represent documents related to the Hillsdale, Inkster and River Rouge sites in Michigan. Copies of this material will also be forwarded to Jonathan Pierce of the Michigan Department of Environmental Quality. Finally, there are also documents bates-numbered OK-000001 to 000142, which are related to the Miami, OK facility. Copies of these documents are being provided to Robert Singletary of the Oklahoma Attorney General's Office. Debtors are continuing their efforts to locate responsive documents and will supplement this production to the extent possible with additional materials when they are identified.

Elise S. Feldman March 16, 2006 Page 2

As indicated previously, this production is not a waiver of any right or privilege concerning the documents or the informal requests, including the attorney-client privilege, all of which the Debtors expressly reserve. Further, we are providing information in the spirit of cooperation to address your requests as promptly and directly as possible. To the extent you have questions regarding the Debtors' production, please do not hesitate to contact Patrick Brooks, Karen Winters or me to discuss them.

Very truly yours,

/s/ Jessica E. DeMonte

Jessica E. DeMonte

cc: Stephen D. Lerner (via email)

Karen A. Winters (via email)

Patrick A. Brooks (via email)

James Morgan (Illinois, via Federal Express)

Jonathan Pierce (Michigan, via Federal Express)

Robert Singletary (Oklahoma, via Federal Express)

**Enclosures** 

JED/acp

U.S. ENVIRONMENTAL PROTECTION AGENCY

MAR 17 2006

OFFICE OF REGIONAL COUNSEL

EaglePicher Technologies, LLC Miami 200 B. J. Tunnel Blvd. Miami, OK 74354

PROJECT NO. 115844.03

August 12, 2005

Prepared by:

Shaw Environmental, Inc. 1761 Larkin Williams Fenton, Missouri 63026-2032

Phone: (636) 326-7122 Fax: (636) 326-9044 Prepared for:

EaglePicher Incorporated 3402 E. University Drive Phoenix, Arizona 85034

#### EaglePicher Technologies, LLC Miami 200 B. J. Tunnel Blvd. Miami, OK 74354

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**TERMINOLOGY** 

200 B. J. Tunnel Blvd. Miami, OK 74354

#### 1.0 EXECUTIVE SUMMARY

At the request of EaglePicher Incorporated, Shaw Environmental, Inc. (Shaw) performed a Phase I Environmental Site Assessment (ESA) of the EaglePicher Technologies, LLC, Materials Research Lab (herein referred to as the Property). The Property is located at 200 B. J. Tunnel Blvd., Miami, Ottawa County, Oklahoma in an area that is characterized by a mix of commercial, industrial and residential use. The Property is an approximately 5-acre lot with three one-story buildings. The buildings and approximate sizes include a 36,750 ft<sup>2</sup> Materials Research Laboratory (MRL); the 13,000 ft<sup>2</sup> Analytical Laboratory; and the 4,000 ft<sup>2</sup> Bottle Prep Building. The MRL Building (or the main building) was divided into an approximately 18,270 ft<sup>2</sup> Suite A and an 18,500 ft<sup>2</sup> Suite B. The Analytical Laboratory, Bottle Prep and Suite B are currently being leased by EP Scientific, a Fisher Scientific subsidiary. Additional buildings include a hazardous waste storage building and two sheds that appeared to be former hazardous waste or hazardous material storage buildings.

The original building (i.e., the main building) was built in 1954 with seven additions constructed through the years. The MRL was utilized as a Research and development lab for the Electronics Division of EaglePicher since 1954. The MRL conducted a number of R&D projects in the fifty plus years of operation. In addition, production of semiconductor materials, lithium for battery production, boron isotopes for the nuclear power industry, gas purification, dichlorosilane gas production, and solvent purification have been conducted at the Property.

The Analytical Laboratory was originally constructed as a Garment Factory in the 1940s or early 50s, and was subsequently used as an auto body shop before EaglePicher bought the Property in 1976. In the 1970s analytical laboratory services were also provided by EaglePicher at the Property. Bottle preparation, for environmental sampling services, was added at a later date. The construction date for the Bottle Prep Building is unknown.

The main objective of the ESA was to identify the presence or likely presence, use, or release on the property of hazardous substances or petroleum products as defined in ASTM Practice E 1527-00 as a recognized environmental condition. Below is a summary of the findings and conclusions of this report:

#### Records Review

Adjacent properties include a number of LUST and UST sites that are hydraulically up gradient and
possibly connected to the Property via an underground storm water culvert. Based on this utility
connection, distance from the Property and assumed hydraulic gradient other nearby sites identified
in State Database findings are considered to be an area of concern for the Property.

#### Site Reconnaissance

• A drain grate and sump located in the basement of the MRL currently or historically discharges to surface water at an unknown location. The sump was located under the stairs of the basement which is also the machine shop for the facility. The location of this discharge point could not be located and site plans were not available for review. The discharge point of this sump is potentially in an environmentally sensitive area. A part washer was also noted in close proximity to this sump. Based on the lack of information and the potential release of hazardous materials, the discharge through the sump in the basement is considered a recognized environmental condition for the Property.

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#### PHASE I ENVIRONMENTAL SITE ASSESSMENT EaglePicher Technologies, LLC Miami 200 B. J. Tunnel Blvd.

Miami, OK 74354

- Hazardous and non-hazardous wastes are handled at the Property. Hazardous wastes are stored in 55-gallon drums in a cinder block hazardous waste storage building shared by EaglePicher and EP Scientific/Fisher Scientific. Based on a limited number of records, hazardous waste from EaglePicher and EP Scientific/Fisher Scientific include an extensive list of compounds. Historic waste storage and handling areas included numerous locations on the south side of the MRL. The lack of documentation and the reported historic waste storage areas are considered areas of potential concern at the Property.
- A release of dichlorosilane reportedly occurred in the southwest corner of the MRL. This gaseous release decomposed into silica oxide and hydrochloric acid. The material is pyrophoric and flammable. This release incident and emergency response reportedly did not result in a sustained impact to the environment. However, the storage area where this release occurred was apparently a concrete slab where various waste and hazardous materials had been stored over the years. This pad had been removed at the time of the site visit and only a small gravel area and distressed vegetation remained. This area is considered a recognized environmental condition due to the reported waste storage activity, distressed vegetation, and the proximity to the drainage ditch behind the facility.
- There is numerous satellite waste storage areas located throughout the buildings. One area that was apparently used for storage of hazardous waste or hazardous material includes the two older sheds located west of the Bottle Prep Building, near the most southwestern part of the Property. Shaw was not granted access to these older sheds. Shaw considers this an area of potential concern for the Property.
- Discussions with EP Technologies personnel indicated that at least one transformer fire had occurred onsite in the early 1980s. The City of Miami reportedly cleaned up the transformer fluid from the fire. Documents for the incident and the cleanup were not available. Shaw considers this transformer fire a *recognized environmental condition*.
- The main building includes a basement in the central portion. A ramp to this basement is located south of the building just east of the hazardous waste storage area. A drain grate at the bottom of this ramp is connected to a sump located in the basement. A parts washing station is located next to this sump, where staining was evident. There is also a machine shop located in the basement. Site drawings were retained by EP Scientific and the location of the discharge point for this sump was unknown. Shaw considers the sump and the discharge point of this sump a recognized environmental condition.
- The main building was a research and development facility where, for approximately 50 years of operations, many experiments were conducted and production of materials were conducted. Some of these operations conducted in the building, such as gaseous crystal growth, melting of metallic compounds, cutting semiconductor material, etc., were likely to produce dust and emissions that could contaminate the interior surfaces of the building and the ventilation system. This potential residue is considered an area of potential concern for future building renovation or remodeling.
- A drainage ditch runs from west to east near the southern boundary of the Property. Residuals from
  waste storage areas and drum cleaning operations conducted on the south side of the building had the
  potential to drain to this ditch. According to EaglePicher personnel, the majority of the material

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handled in these areas included various acids and metal waste. No staining was observed in the ditch; however, the potential past impact of contaminants on this drainage ditch is considered an *area* of potential concern.

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#### 2.0 INTRODUCTION

This report documents the findings, opinions and conclusions of a Phase I Environmental Site Assessment (ESA) of the EaglePicher Technologies, LLC, Materials Research Lab located at 200 B. J. Tunnel Blvd., Miami, Ottawa County, Oklahoma.

#### 2.1 Purpose

The purpose of this ESA was to identify *recognized environmental conditions* and certain potential environmental conditions outside the scope of ASTM Practice E 1527-00 in connection with the Property at the time of the site reconnaissance.

#### 2.2 Scope

This ESA was conducted in accordance with the ASTM Standard Practice E 1527-00, consistent with a level of care and skill ordinarily practiced by the consulting profession currently providing similar services under similar circumstances. Significant additions, deletions or deviations to ASTM Practice E 1527-00 are noted below or in the corresponding sections of this report. The scope of this assessment included an evaluation of the following:

- Physical setting characteristics of the Property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.
- History of the uses of the Property, adjoining properties and surrounding area through a review of referenced sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports and interviews.
- Current property uses and conditions including observations and interviews regarding: the use, treatment, storage, disposal or generation of hazardous substances, petroleum products and hazardous, regulated, or medical wastes; equipment that is known or likely to contain PCBs; storage tanks and drums; wells, drains and sumps; and pits, ponds or lagoons.
- Uses of adjoining and surrounding area properties and the likelihood of known or suspected releases of hazardous substances or petroleum products to migrate into the Property.
- Information in referenced environmental agency databases and local environmental records, within the specified approximate minimum search distance from the Property.

The scope of the assessment also included consideration of the following potential environmental conditions that are beyond the scope of ASTM Practice E 1527-00:

- Asbestos-containing material (ACM), consisting of providing an opinion on the potential for the
  presence of ACM based on the construction date of buildings on the Property and visual observation
  of the condition of suspect ACM.
- Radon, consisting of the review of published radon data with regard to the potential for elevated levels of radon gas in the surrounding area of the Property.

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#### 2.3 Assumptions, Limitations and Exceptions

Shaw has prepared this Phase I Environmental Site Assessment using reasonable efforts to identify *recognized environmental conditions* associated with hazardous substances or petroleum products at the Property. Findings within this report are based on information collected from observations made on the day(s) of the site reconnaissance and from reasonably ascertainable information obtained from certain public agencies and other referenced sources.

The ASTM Practice E 1527-00 recognizes inherent limitations for ESAs that apply to this report, including:

- Uncertainty Not Eliminated No ESA can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property.
- Not Exhaustive An ESA is not an exhaustive investigation.
- Past Uses of the Property Review of standard historical sources at less than five year intervals is not required.

Users of this report may refer to E 1527-00 for further information regarding these and other limitations.

This report is not definitive and should not be assumed to be a complete or specific definition of all conditions above or below grade. Current subsurface conditions may differ from the conditions implied by surface observations or historical sources and can be most reliably evaluated through intrusive techniques that were beyond the scope of this report. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, or other construction purposes. Shaw makes no representation or warranty that the past or current operations at the Property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Regardless of the findings stated in this report, Shaw is not responsible for consequences or conditions arising from facts that were not fully disclosed to Shaw during the assessment.

An independent data research company provided the government agency database referenced in this report. Information on surrounding area properties was requested for approximate minimum search distances and was assumed to be correct and complete unless obviously contradicted by Shaw's observations or other credible referenced sources reviewed during the assessment.

Reasonable efforts were made to identify evidence of aboveground and underground storage tanks and ancillary equipment on the Property during the assessment. "Reasonable efforts" were limited to observation of accessible areas, review of referenced public records and interviews. These methods may not identify subsurface equipment or evidence hidden from view by things such as, but not limited to, snow cover, paving, construction activities, stored materials and landscaping.

Any estimates of costs or quantities in this report are approximations based on findings that are limited by the scope of the assessment, schedule demands, cost constraints, accessibility limitations and other factors associated with performing an ESA. Subsequent determinations of costs or quantities may vary from the estimates in this report.

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Shaw is not a professional title insurance or land surveyor firm and makes no guarantee, explicit or implied, that any land title records acquired or reviewed, or any physical descriptions or depictions of the Property in this report, represent a comprehensive definition or precise delineation of property ownership or boundaries.

Exceptions of this report also include an inability to review property records that were in the procession of EP Scientific/Fisher Scientific. Records available for review by Shaw were limited to the approximately 10 years (1993-2003) of annual hazardous waste reports. Additional records for years 1993 through 2003, as well as additional site records prior to 1993 and after 2003 were not available. These records were in the procession of EP Scientific/Fisher Scientific which would not grant Shaw access to review or copy. These records include but are not limited to:

- Annual hazardous waste reports;
- Hazardous Materials Inventory Reports (Form Rs);
- Regulatory correspondence;
- City of Miami records for POTW discharge, pollution prevention and transformer documentation; and
- Site Drawings

Shaw considers this is a significant exception to this Phase I ESA.

Other assumptions, limitations and exceptions that are specific to the scope of this report may be found in corresponding sections.

#### 2.4 Special Terms and Conditions (User Reliance)

This report is for the use and benefit of, and may be relied upon by, EaglePicher Incorporated and third parties authorized in writing by EaglePicher Incorporated and Shaw, including the lender(s) in connection with a secured financing of the Property, and their respective successors and assigns. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations in this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the Property that were not discovered within the authorized scope of the assessment.

Shaw makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either express or implied.

EaglePicher Technologies, LLC Miami 200 B. J. Tunnel Blvd. Miami, OK 74354

#### 3.0 SITE DESCRIPTION

#### 3.1 Location and Legal Description

The Property address is 200 B. J. Tunnel Blvd., Miami, Ottawa County, Oklahoma. Site Photographs are provided as **Appendix A** and a Site Vicinity Map is located as **Appendix B**. According to information obtained from Ottawa County's Recorder of Deeds, the Properties legal description is all of Block 2 and Lots 1 through 8 of Block 3 of Wea Addition, Plat 4 to the City of Miami, Ottawa County, Oklahoma. According to the City of Miami, City Engineers Office, the Property is zoned C-5- Commercial. Ottawa County Records are included as **Appendix C**.

#### 3.2 Surrounding Area General Characteristics

The Property is located on the south side of BJ Tunnel Blvd., one lot east of Main Street at the above-listed address. The adjacent properties south of BJ Tunnel Blvd. generally consist of commercial and industrial businesses. The properties north of BJ Tunnel Blvd. include commercial and residential property. The Property is bounded to the west by Montana Mikes Steak House; Springfield Cabinets and Payton's Auto Repair Shop bound the Property to the east; residences, Mecca Entertainment and a child day care facility is located to the north across BJ Tunnel Blvd. A City park with a baseball diamond is located south of the Property.

#### 3.3 Current Use of the Property

The Property is currently a manufacturing facility for mixture of lithium aluminum and lithium silicon for use in battery manufacturing. The facility also houses EP Scientific/Fisher Scientific businesses including solvent and chemical purification, bottled gas purification, analytical laboratory services, and environmental bottle and preservative preparation. The processes that occur in this portion of the Property include preparation of laboratory grade ampules and bottles for environmental sampling. The cleaned bottles are prepared with preservatives such as nitric acid, hydrochloric acid, sodium bisulfate, and methanol. The bottles are custody sealed, boxed and shipped from the building located in the southwestern portion of the Property. The operations conducted by EP Scientific/Fisher Scientific in the western portion of the main building included purification of gases and liquids. In addition, EP Scientific has a full service laboratory that provides a variety of sample analysis for customers that is located in the northwestern part of the Property. A Site Plan of the Property is located in **Appendix D**.

### 3.4 Description of Property Improvements

PROPERTY IMPROVEMENTS				
Size of Property (approximate)	5.03 acres			
General Topography of Property	The Property is on a level site with drainage to the south to drainage ditch.			
Adjoining and/or Access/Egress Roads	BJ Tunnel Boulevard			
Paved or Concrete Areas (including parking)	Asphalt paved and gravel parking areas and driveways			
Unimproved Areas	None			
Landscaped Areas	Grass areas on the north, east and south sides of the building			
Surface Water	A drainage ditch flows west to east along the southern property boundary.			
Potable Water Source	City of Miami			

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PROPERTY IMPROVEMENTS				
Sanitary Sewer Utility	City of Miami			
Storm Sewer Utility	City of Miami			
Electrical Utility	City of Miami			
Natural Gas Utility	Oklahoma Gas			
Current Occupancy Status	EaglePicher Technologies, LLC and EP Scientific/Fisher Scientific			
Unoccupied Buildings/Spaces/Structures	Storage sheds are located west of the Bottle Prep.			
Number of Occupied Buildings	3- Main Building, Bottle Prep, Analytical Laboratory			
General Building Description	Main Building - One-story building, metal frame and brick Bottle Prep – One story metal frame and steel sided Analytical Laboratory – One story metal frame and brick Hazardous Waste Storage – Cinder block			
Number of Floors	One			
Total Square Feet of Space (approximate)	Main Building – 36,000 ft <sup>2</sup> Bottle Prep – 4,000 ft <sup>2</sup>			
	Analytical Laboratory – 13,000 ft <sup>2</sup>			
	Hazardous Waste Storage – 300 ft <sup>2</sup>			
Construction Completion Date (year)	1954 through approximately 1987			
Construction Type	Steel frame and cinder block on 6"-thick concrete slab			
Interior Finishes Description	Cinder block, dry wall, drop ceilings, tile floors.			
Exterior Finishes Description	Main Building - One-story building, metal frame and brick Bottle Prep – One story metal frame and steel sided Analytical Laboratory – One story metal frame and brick Hazardous Waste Storage – Cinder block			
Cooling System Type	HVAC			
Heating System Type	Natural gas			
Emergency Power	None			

## 3.5 Current Uses of Adjoining Properties

Current uses of the adjoining properties were observed to be as follows:

North – Mecca Entertainment and a child day care facility across BJ Tunnel Blvd.

East - Springfield Cabinets and Payton's Auto Repair Shop

South - City Park and Baseball Field

West - Montana Mikes Steak House

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#### 4.0 USER PROVIDED INFORMATION

The following section summarizes information (if any) provided by EaglePicher Incorporated (EaglePicher) and EaglePicher Technologies, LLC with regard to the ESA.

#### 4.1 Title Records

EaglePicher provided no title records information.

#### 4.2 Environmental Liens or Activity and Use Limitations

EaglePicher provided no information regarding property environmental liens or activity and use limitations.

#### 4.3 Specialized Knowledge

EaglePicher provided no specialized knowledge regarding *recognized environmental conditions* associated with the Property.

#### 4.4 Valuation Reduction for Environmental Issues

EaglePicher provided no information regarding valuation reduction for environmental issues associated with the Property.

#### 4.5 Owner, Property Manager and Occupant Information

EaglePicher provided Forrest Hummel as the Safety/Environmental Manager for the Property.

#### 4.6 Reason for Performing Phase I ESA

EaglePicher provided information that this environmental assessment is being performing for refinancing purposes.

#### 4.7 Other User Provided Documents

EaglePicher provided annual hazardous waste reports from 1993 through 2003 for review.

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#### 5.0 RECORDS REVIEW

#### 5.1 Standard Environmental Records

The regulatory agency database report discussed in this section, provided by Environmental Data Resources Inc. (EDR) of Milford, Connecticut, was reviewed for information regarding reported releases of hazardous substances and petroleum products on or near the Property. Shaw also reviewed the "unmappable" (also referred to as "orphan") listings within the database report, cross-referencing available address information and facility names. Unmappable sites are listings that could not be plotted with confidence, but are potentially in the general area of the Property based on the partial street address, city, or zip code. Any unmappable site that was identified by Shaw as a being within the approximate minimum search distance from the Property based on the site reconnaissance and/or cross-referencing to mapped listings, is included in the discussion within this section. A copy of the EDR Regulatory Database Report is included as **Appendix E.** 

The following is a summary of the findings of the database review:

SUMMARY OF FEDERAL & STATE AGENCY DATABASE FINDINGS				
Regulatory Database	Approx. Minimum Search Distance	Property Listed?	# Sites Listed	
Federal National Priority List (NPL)	1 mile	No	0	
Federal CERCLIS list	½ mile	No	0	
Federal CERCLIS NFRAP	¼ mile	No	0	
Federal RCRA CORRACTS	1 mile	No	1	
Federal RCRA non- CORRACTS TSD	½ mile	No	1	
Federal RCRA Generators	⅓ mile	Yes	3	
Federal ERNS list	Property	No	0	
State-equivalent NPL	1 mile	No	0	
State-equivalent CERCLIS	½ mile	No	0	
State Landfill or Solid Waste Disposal sites	½ mile	No	0	
State Leaking Underground Storage Tanks (LUST)	½ mile	No	6	
State Registered Underground Storage Tanks (UST)	¼ mile	No	6	
State Voluntary Cleanup Program	½ mile	No	0	

The Property was listed in the database as a RCRA small quantity generator. However records obtained from EaglePicher indicate the site is a large quantity generator. These sites are discussed further in the following Sections 5.1.1 and 5.1.2.

Orphan Summary: Orphan sites are properties in the general location, zip code or city of the Subject Property that are listed in the database but have insufficient information on the address to locate them on the radius report. Ten orphan sites were identified in the Orphan Site Summary. None of these sites were obviously located near the Property.

#### **5.1.1** Federal Agency Database Findings

Based on the EDR Report for the Property dated March 2, 2005, three sites were identified in the federal agency databases reviewed.

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EaglePicher Technologies, LLC (The Property) was identified as a RCRA SQG. There is one violation for the Property dealing with generator oversight. The Property is listed as being in compliance as of November 10, 2003 and Federal and State environmental data base records indicate that it is not a recognized environmental condition at this time.

EP Scientific/Fisher Scientific is also listed as a RCRA SQG with no violations reported.

Commerce Plastics Fiberglass Reinforce is also a RCRA SQG located at 900 North Main Street in Miami, Oklahoma. This facility is located upgradient, approximately 1000 feet northwest of the Property. No violations were found and Federal and State environmental data base records indicate that it is not considered to be a *recognized environmental condition* at this time.

#### 5.1.2 State Agency Database Findings

Based on the EDR Report for the Property dated March 2, 2005, three sites were identified in the State Agency Database reviewed. These sites in order of proximity to the Property include:

Continental Baking Co.

830 NE D Street Miami, Oklahoma

**Databases: UST and LUST** 

Approximate Distance from the Property: approximately 480 feet, east

Assumed Hydraulic Gradient: down gradient

**Regulatory Data Summary**: The facility had a November 5 1992 LUST incident that was closed in April 1993. The facility also had a third party operated a 4000-gallon diesel UST installed in 1965 that is reported to be permanently out of service.

**Discussion**: Based on assumed hydraulic gradient, current regulatory status, this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time

Johns Diesel Service

821 D NE

Miami, Oklahoma

**Databases:** UST and LUST

Approximate Distance from the Property: approximately 500 feet east/southeast

Assumed Groundwater Gradient: downgradient

**Regulatory Data Summary**: The facility had a September 24, 1993 LUST incident that was closed in November 1993. The facility also had a 500-gallon UST installed in 1974 that is reported to be permanently out of service.

**Discussion**: Based on assumed hydraulic gradient, current regulatory status, this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time.

Total Stores/ Quad States Distributing Inc.

901 North Main Street Miami, Oklahoma

**Databases**: UST and LUST

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**Approximate Distance from the Property**: approximately 801 feet, east

Assumed Hydraulic Gradient: up gradient

**Regulatory Data Summary**: The facility had a December 1991 LUST incident that was closed in February 1996. The facility also had fourteen USTs of various sizes and contents installed at various dates from 1970 through 1992. Eleven of the USTs are listed as permanently out of use and four were listed as currently in use. No records of UST removal, additional LUST incidents or state voluntary cleanup program files were recorded in the database.

**Discussion**: Shaw observed during site reconnaissance that this site was being redeveloped as a fast food restaurant. The site is not only up gradient of the Property but there is also an underground drainage culvert that comes from the direction of the 901 N. Main Street property and enters the Subject Property west of the EP Scientific/Fisher Scientific Bottle Prep Building. Based on the assumed hydraulic gradient, the underground culvert, the number of USTs at the site, this site is considered to represent a likely past, present or material threat of release on the property. Based on this information, this property is an area of concern for the Property.

North Main Express 845 North Main Street Miami, Oklahoma **Databases**: UST

Approximate Distance from the Property: approximately 819 feet west

Assumed Groundwater Gradient: up gradient

**Regulatory Data Summary**: The facility had two 8,000-gallon gasoline USTs installed in 1974 that are reported to be permanently out of service.

**Discussion**: Based on the assumed hydraulic gradient and the underground culvert also present from this general direction, this site is considered to represent a likely past, present or material threat of release on the property. Based on this information, this property is an area of concern for the Property.

Rocor Inc.

1014 N. Main Street Miami, Oklahoma

**Databases: UST and LUST** 

Approximate Distance from the Property: approximately 978 feet, northwest

Assumed Hydraulic Gradient: up gradient

**Regulatory Data Summary**: The facility had a May 8, 1990 LUST incident that was closed in August 1992. The facility also had two 8,087-gallon and a 2,018-gallon gasoline USTs that are reported to be permanently out of service.

**Discussion**: Based on current regulatory status, and recent development between this site and the subject property this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time.

Ottawa County Farm Supply 530 D NE

Miami, Oklahoma **Databases**: UST

Approximate Distance from the Property: approximately 1314 feet south/southeast

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Assumed Groundwater Gradient: down gradient

**Regulatory Data Summary**: The facility had a 1,000-gallon diesel UST that is reported to be permanently out of service.

**Discussion**: Based on assumed hydraulic gradient, current regulatory status, this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time.

City of Miami Street Dept.

5<sup>th</sup> and D Street Miami, Oklahoma **Databases**: LUST

Approximate Distance from the Property: approximately 1410 feet, south/southeast

Assumed Hydraulic Gradient: higher elevation but apparently down gradient,

**Regulatory Data Summary**: The facility had a March 12, 1997 LUST incident that was closed in March 1990.

**Discussion**: This site has a higher elevation than the Property. However it is apparently across the drainage that flows to the northeast in this area. The hydraulic gradient is assumed to be in a different direction than the Property. Based on the assumed hydraulic gradient, current regulatory status, this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time.

Auto Detail Shop 501 North Main Street Miami, Oklahoma

**Databases**: UST and LUST

Approximate Distance from the Property: approximately 1566 feet, southwest

Assumed Hydraulic Gradient: up gradient

**Regulatory Data Summary**: The facility had a November 1991 LUST incident that was closed in February 2000. The facility also had four 4,000-gallon and a 550-gallon UST with various contents installed in 1971 and 1981. All USTs are listed as temporarily out of use.

**Discussion**: Based on assumed hydraulic gradient, distance from the subject property and current regulatory status, this site is not considered to represent a likely past, present or material threat of release on the Property and is not considered to be a *recognized environmental condition* at this time.

#### 5.1.3 Local Regulatory Agency Findings

City of Miami Pollution Prevention

Shaw interview Ms. Julie Matthews, City of Miami Pollution Prevention Coordinator for local environmental regulations that apply to the Property. MS. Matthews indicated that the City has conducted an inspection of the EP Scientific/Fisher Scientific portion of the Property in late 2004 and an inspection of the EaglePicher Technologies portion of the Property in July 2005.

The Industrial Waste Water Discharge Permit for the Property was transferred to EP Scientific/Fisher Scientific. Ms. Matthews commented that the EP Scientific/Fisher Scientific operations were generally

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in compliance with pretreatment requirements for sanitary sewer discharge. She was provided with a list of the chemicals stored on the EP Scientific/Fisher Scientific side of the facility but could not provide that information to Shaw. She voiced some concerns about emergency response planning for the facility.

The inspection of EaglePicher Technologies portion of the Property also indicated that the Property was in general compliance with the pretreatment requirements for sanitary sewer discharge. However, housekeeping issues and exposure of hazardous materials to storm water were noted during her inspection. Several drums with unknown solid and liquid contents were observed at the site. Several gas cylinders, lying on their sides, were observed scattered around the south side of the Property. The City of Miami is one of 14 communities in Oklahoma that has the lead on enforcing storm water regulations. The open storage of solid and liquid waste in drums on the south side of the Property is viewed as a threat to the drainage ditch along the south property boundary. She also voiced some concerns about emergency response planning for the facility and indicated that the lack of cooperation between the two entities occupying the Property complicated this issue.

#### **5.2** Physical Setting Sources

#### 5.2.1 Topography

The site lies on the boundary of the Miami NW OK and Picher, OK-KS 7.5 Minute USGS Topographic Quadrangles, dated 1982. The site elevation is approximately 780 feet above mean sea level (MSL). The drainage ditch on the southern property boundary flows to the east and empties into Tar Creek which then empties into the Neosho River approximately 2.5 miles southeast of the Property. Historic Topographical Maps are presented in **Appendix F**.

Tar Creek is the surface water body that provides the name for the Tar Creek Superfund Site. This CERCLA NPL site includes 40 square miles of area around Picher, Oklahoma. The site includes contamination of sanitary sewage and groundwater which has occurred as a result of extensive lead and zinc mining activities from the early 1900's. Mine workings in the Boone Formation have flooded and resulted in contaminated water which has migrated to sanitary sewage and the underlying Aquifer in the Roubidoux Formation. The Tar Creek NPL is not considered a REC for the Property because it is not within the one-mile ASTM radius.

#### 5.2.2 Geology

According to the Physical setting Source Summary in the EDR Report, the Property is underlain by stratified sequences of Mississippian, Chesterian bedrock. According to information obtained by site personnel, excavations for foundations installed for equipment encountered bedrock within 10 feet of the ground surface.

#### **5.2.3** Soils

According to EDR Report, the Taloka silt loam soil series is developed on the Property. These soils tend to be thin and depth to bedrock is generally greater than 60 inches but should be less than 10 feet. These soil exhibit low permeability and tend to have slow infiltrations rates. The soils tend to be poorly with wet zones relatively high in the profile. Depth to groundwater is typically one to 3 feet below ground

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surface. The Taloka Series is typically a silt loam from 0 to 28 inches depth and clay loam from 28 to 78 inches depth and weathered bedrock from 78 to 120 inches depth.

#### 5.2.4 Hydrology

Based on the 7.5 Minute USGS NW Miami and Picher OK-KS, Topographic Quadrangles dated 1982, and assuming that groundwater flow would coincide with the direction of slope of the ground surface, the estimated groundwater flow direction is south and southeast. Estimated groundwater levels and/or flow direction(s) may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

## 5.2.5 Other Physical Setting Sources

Flood Plain Map

Based on FEMA flood electronic data, the Property is not in a 100-year or 500-year flood plain.

Wetlands Map

The Overview Map of the EDR Report does not include National Wetlands Inventory electronic data coverage

#### 5.3 Historical Use Information

The following table summarizes the findings of the research presented below pertaining to historical property and surrounding area uses.

HISTORICAL USE SUMMARY					
	Identified Historical Uses				
Period	Property	Surrounding Area	Source(s)	Intervals/Comments	
Prior to – 1964	Undeveloped land	Undeveloped	City Directory,	Prior to 1964	
	until 1964		interviews		
	according to				
	interviews;				
	however,				
	EaglePicher				
	appears on City				
	Directory in 1962				
1964 – 2005	Original building	Developed with	Topographic Maps	1964 through 2005	
	with seven	commercial and	photographs,		
	additions	industrial properties	interviews		

#### 5.3.1 Aerial Photographs

The EDR Aerial Photo Decade Package included no coverage of the Property. A 1995 aerial photo was obtained through Microsoft Terraserver<sup>©</sup>. This photo is presented in **Appendix G**.

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#### **5.3.2** Fire Insurance Maps

A search for fire insurance maps for the Property and surrounding area was conducted by EDR. No such maps for the Property were available.

#### **5.3.3** Property Tax Files

No historical information was available for the Property.

#### 5.3.4 Land Title Records

The acquisition of land title records was not required by the scope of work for the ESA.

#### 5.3.5 Historical USGS Topographic Quadrangles

Historical topographic maps were obtained from EDR and are described in the following table.

HISTORICAL TOPOGRAPHIC MAP SUMMARY						
Year	Year Scale Comments					
1909	1909 1:125,000 <b>Property</b> : undeveloped					
	Surrounding Area: undeveloped					
1961	v-   vov   voperty, represent the resolvent					
Surrounding Area: developed						
1982						
	Surrounding Area: developed					

No *recognized environmental conditions* were identified as part of the historical topographic map review. Copies of the above three topographic map sets are included in **Appendix F**.

#### 5.3.6 City Directories

A search for City Directories for the property and surrounding area was conducted by EDR. EDR's search of Polk's City Directory revealed addresses for the area. The review of City Directories did not identify past uses indicating *recognized environmental conditions* with the property or surrounding areas. A copy of the City Directories, provided by EDR, is included in **Appendix H**.

CITY DIRECTORIES					
Year	Subject Property	Surrounding Properties – B. J. Tunnel Blvd.			
1962	EaglePicher Research Listed for MRL.	Lab and Bottle Prep Address- not listed Residences listed across BJ Tunnel			
EaglePicher Research Lab Electronics DIV-listed for MRL.		Lab and Bottle Prep Address- not listed Residences listed across BJ Tunnel			

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	CITY DIRECTORIES					
Year Subject Property Surrounding Properties – B. J. Tunno						
1972	EaglePicher Research Lab Electronics DIV-listed for MRL.	Lab and Bottle Prep Address- listed as Burlington Mfg. Automatic Car Wash, J&W Mfg. Co. listed on NE corner 9 <sup>th</sup> and Main. Residences listed across BJ Tunnel				
1977	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address- listed as EaglePicher Industries (Lab)	Automatic Car Wash, J&W Mfg. Co. listed on NE corner 9 <sup>th</sup> and Main. Residences listed across BJ Tunnel				
1982	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address- listed as EaglePicher Industries (Lab)	NE corner 9 <sup>th</sup> and Main listed as vacant. Residences listed across BJ Tunnel Jane Ls Playschool at 215				
1989	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address- listed as EaglePicher Industries (Lab)	NE corner 9 <sup>th</sup> and Main listed as vacant. Residences listed across BJ Tunnel Harlan's Discount Auto at 207				
1994	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address- listed as EaglePicher Industries (Lab)	NE corner 9 <sup>th</sup> and Main listed as vacant. Residences listed across BJ Tunnel Payton's Auto at 207 Anderson Mini Storage at 203				
1999	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address removed	Residences listed across BJ Tunnel Payton's Signs at 207 All other addresses not verified				
2004	EaglePicher Research Lab Electronics DIV-listed for MRL. Lab and Bottle Prep Address removed	Residences listed across BJ Tunnel Payton's Signs at 207 All other addresses not verified				

# **5.3.7** Building Department Records

No historical use information was available for the Property.

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# 5.3.8 Zoning/Land Use Records

No historical use information was available for the Property.

## **5.3.9** Prior Reports

Previous environmental reports were not available. According to Mr. Hummell, there are no known environmental reports for the Property.

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#### 6.0 SITE RECONNAISSANCE

The site reconnaissance was conducted on May 16, 17, and 18, 2005 by John Carrow, Project Manager for Shaw. Shaw was accompanied by Mr. Forrest Hummell with EaglePicher Technologies, LLC. The following is a summary of visual and/or physical observations of the Property on the days of the site visit. Photographs can be found in **Appendix A**.

The former Material Research Lab (MRL) is the main building and houses Suite A occupied by EaglePicher and Suite B occupied by EP Scientific/Fisher Scientific. Lithium aluminum and lithium silicon are produced in Suite A. Boron trifluoride (BF<sub>3</sub>) was formerly produced in this building. EP Scientific/Fisher Scientific purifies non-chlorinated solvents in Suite B. Offices are located throughout this building.

EP Scientific/Fisher Scientific also occupies the approximate 13,000 ft<sup>2</sup> Laboratory Building that houses a full service environmental analytical laboratory. EP Scientific/Fisher Scientific also occupies the approximate 4,000 ft<sup>2</sup> Bottle Prep Building where bottles for environmental sample collection are cleaned, preservatives are added, and the bottles are shipped to customers. Offices are located in each building.

An approximate 250 ft<sup>2</sup> cinder block hazardous waste storage building is located south of the main building between the loading dock and the ramp to the basement. This storage building is shared by both EaglePicher and EP Scientific/Fisher Scientific. Two other apparent former waste and hazardous material buildings are located on the southwest corner of the Property west of the Bottle Prep Building. It was not known by EaglePicher the current use of these locked and inaccessible buildings. A building addition located on the southeast corner of the MRL is the solid waste storage for EaglePicher. A storage shed on the east side of the MRL was formerly used for the storage of Kerf Loss (cuttings and dust from slicing semiconductor wafers). EP Scientific/Fisher Scientific has a portable hazardous material storage shed on the south side of the MRL.

An asphalt parking lot is located on the northwestern side of the main building (between the main building and the Laboratory Building). A gravel parking area and drive are located on the northeastern part of Property and circle around the south side to the asphalt parking area on the west side of the MRL. Truck docks are located on the southwestern and south sides of the MRL, as well as the east side of the Bottle Prep Building. A ramp to the basement is located on the south side of the MRL. Areas not covered by buildings or concrete and asphalt pavement are landscaped with grass.

### 6.1 Methodology and Limiting Conditions

The site reconnaissance consisted of visual and/or physical observations of: the Property and improvements; adjoining sites as viewed from the Property; and, the surrounding area based on visual observations made by driving around the Property. The drainage ditch was observed along the perimeter through a chain link fence. Building exteriors were observed along the perimeter from the ground, unless described otherwise. The main limiting condition for viewing the Property was imposed by EP Scientific/Fisher Scientific. After access was approved by their corporate environmental personnel, Shaw was allowed to view the interior of their buildings. However notes or photographs could not be taken.

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#### 6.2 Hazardous Substance Use/Storage

Hazardous wastes are stored in 55-gallon drums, most of which were labeled, inside the hazardous waste storage building shared by EaglePicher and EP Scientific/Fisher Scientific. Lighting in this area was dim but no obvious staining or other visual evidence of a spill and/or release at the storage area was observed. Records for disposal/recycling of the waste at the main building were limited but the ones reviewed showed a number of different disposal facilities for the various waste profiles.

#### 6.3 Storage Tanks

Shaw did not observe evidence of storage tanks (aboveground or underground) on the Property with the exception of a nitrogen tank. Records for the nitrogen tank were unavailable. EaglePicher has no knowledge of USTs at this Property.

#### 6.4 Other Petroleum Products

Petroleum products observed on site during the site reconnaissance included waste oils stored in 55-gallon drums in the hazardous waste storage building. Based on the limited annual hazardous waste reports that were available, this material is sent for fuel blending.

#### 6.5 Polychlorinated Biphenyls (PCBs)

Shaw observed a significant number of transformers at the Property. Mr. Dave Matthews of the City of Miami indicated that all transformers were non-PCB containing as of 1983. Documentation of this was sent to EaglePicher but is currently being retained by EP Scientific/Fisher Scientific. Mr. Matthews recalled two transformer fires that occurred at the Property and stated that the City would have performed the cleaned up. Documentation of the cleanups was not available.

Light ballasts are a potential source of PCBs; however, inspection of the light ballasts was outside this Scope of Work. If the ballasts leak or removed, they should be inspected for labels regarding the PCB content and disposed of in accordance are applicable regulations.

#### **6.6** Unidentified Substance Containers

Shaw observed unlabeled drums and gas cylinders at the Property during site reconnaissance. Some of these drums were cleaned outside for reuse in lithium production. Some of the drums were opened and had solid waste from lithium production contained inside. The areas around these drums was gravel and concrete but there were no obvious signs of staining or stressed vegetation.

#### 6.7 Waste Generation, Storage and Disposal

As previously mentioned, hazardous wastes are stored in 55-gallon drums, most of which were labeled, inside the hazardous waste storage building shared by EaglePicher and EP Scientific/Fisher Scientific. Lighting in this area was dim but no obvious staining or other visual evidence of a spill or other release at the storage area was observed. Two buildings observed west of the EP Scientific/Fisher Scientific Bottle Prep Building appeared to be former hazardous material or hazardous waste storage buildings based on the placards that remained.

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Records for disposal/recycling of the waste at the main building were limited but the ones reviewed showed a number of different compounds and disposal facilities for the various waste profiles. A list of hazardous waste inventory from 1994 and 1995 and the disposal method includes

- Rock Shop Coolant Deep Well Injection;
- Toluene/Methanol Fuel Blending;
- Arsine Cylinders Incineration;
- Phosphine Cylinders Incineration;
- Dichloromethane Solvent Reclamation;
- Organic Solvents Kiln Blending;
- Water from CN testing Wastewater Program;
- Dioxin Debris Incineration;
- Dioxin Liquid Incineration;
- Dioxin Solid Labpack Incineration;
- Dioxin Liquid Labpack Incineration;
- Boron Triflouride Heels Secure Hazardous Waste Landfill;
- Weir Solids Secure Hazardous Waste Landfill;
- Rock shop Saw Solids Secure Hazardous Waste Landfill;
- Oil Samples –Kiln Fuel Blending;
- Water Lab Waste Wastewater Program;
- Dichlorosilane Pump Oil Kiln Fuel and Incineration;
- Excess Samples Corrosive Wastewater Program;
- Scrubber Solution Incineration;
- Rock shop Debris Secure Hazardous Waste Landfill;
- Reacted Lithium Alloy Landfill;
- Wafer Solids Incineration Solids; and
- GC/MS Pump Oil Kiln Fuel Blending;

#### Labpacks included small quantities of the following:

- Uitride Solution;
- Xylene, Acetonitrile;
- Carbon Tetrachloride, Chloroform;
- Potassium Cyanide, Sodium Nitroprusside;
- Magnesium II Nitrate Solution;
- Magnesium turnings, Phosphorus Metal Flake;
- Thionyl chloride;
- Aluminum Chloride, Potassium Hydroxide;
- Acetic Acid, Formic Acid;
- Methyl Cyanide;
- Sodium Hydride, Sodium ethoxide;
- Manganese Dioxide, Lithium nitrate;
- Mercury;
- Pyrophoric Liquid;
- Flammable Solid;
- Flammable Liquid;

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- Poisonous Liquid; and
- Poisonous Solid.

Non-hazardous wastes include industrial oil and waste oil. This material is also stored in the hazardous waste storage building. Solid waste from lithium production was stored outside the southeast corner of the MRL. Some of this material was stored in open drums. Some of this material appeared to be on the ground around these drums. Kerf Loss was removed from the storage area east of the main building, but residue remained on the floor.

An additional historic waste storage area was located near the southeast corner of the Property. This area was demolished a few years ago after a dichlorosilane incident required emergency response. Vegetation was distressed but it was not apparent if this was from waste storage at the location or the demolition of the structure. According to EaglePicher personnel, historic hazardous and solid waste storage areas were located in a number of various areas south of the main building.

#### 6.8 Waste Pits, Ponds and Lagoons

No other evidence of waste pits, ponds or lagoons was observed by Shaw on the Property.

#### 6.9 Sumps

A grate at the base of the ramp to the basement was connected to a sump located beneath the stairs in the basement. This sump apparently discharges to the drainage ditch on the south side of the Property. A parts washer station was located next to this sump. The basement also houses the machine shop for the facility and the floor has apparent staining typical of a machine shop with over 50 years of use.

#### 6.10 Septic Systems

Shaw did not observe evidence of a septic system on site. In addition, the Property has been connected to the City of Miami sanitary sewer since the development of the Property. A Industrial Waste Water Discharge (IWD) permit was held for the facility until the split of EP Scientific/Fisher Scientific. They apparently now have the IWD Permit.

#### 6.11 Storm Water Management System

Storm water flows into the drainage ditch on the southern property boundary. This ditch flows from west to east where it connects to Tar Creek. Signs of distressed vegetation were difficult to observe through the chain link fence near the back of the Property. The City of Miami will soon be regulating storm water pollution prevention and No Exposure Certification, which is the certification required by industrial facilities in lieu of a Storm Water Pollution Prevention Plan. An inspection recently conducted by the city revealed waste storage practices and housekeeping concerns that would require corrective action when the city obtains authority over its storm water.

#### **6.12** Wells

Shaw did not observe evidence of groundwater monitoring wells on this Property. Mr. Hummell was not aware of any monitoring wells located on the Property.

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Based on the Physical Setting Source Map in the EDR (**Appendix E**), 19 water wells were located in a one-mile radius of the Property. The majority of these wells were for groundwater monitoring. Several wells were installed by the United States Geologic Survey for purposes of monitoring the Roubidoux Formation as part of the investigation of the Tar Creek Superfund Site (see Section 5.2.1 for additional information).

#### 6.13 Asbestos Containing Materials

Typical building materials that contain asbestos are found in a variety of types and uses. Frequently-encountered types of ACMs used in building construction include floor tile, sheet flooring, mastic, ceiling tile, spray-applied acoustical/decorative ceiling materials, plaster, wallboard and wallboard joint compound, insulation, roofing and flashing, and many other materials in common use prior to 1978. ACMs must be handled according to Occupational Safety and Health Administration (OSHA) and USEPA regulations.

ACMs identified as "friable" (capable of being crumbled, pulverized, or reduced to powder by hand pressure) have a greater potential for release of airborne fibers and are, therefore, of greater concern than non-friable ACMs.

Shaw observed suspected ACMs during the site reconnaissance and based on the age of the building, ACMs are very probable. Based on discussions with EaglePicher current and former personnel, asbestos abatement was conducted at the Property in the mid 1990s. This abatement was limited to the ACM found in the vent hoods in the main building when a number of them were replaced. Documents for the abatement were not available.

Since sampling was not conducted and building construction documents were not available at the time of this investigation, prior to any demolition or renovation activities, an in-depth investigation should be conducted. This would typically include a comprehensive asbestos survey with bulk sampling and laboratory analyses, a review of building construction documents and information available from manufacturers of the various materials, or a combination of theses.

#### 6.14 Radon

The USEPA defines radon as a colorless, odorless, radioactive gas that comes from the natural decay of uranium that is found in nearly all soils. It typically moves through the ground to the air above and into homes and other buildings through cracks and openings in the foundation. According to the USEPA, Ottawa County, Oklahoma, is located within Zone 3, indicating that (Zone 3) the average predicted indoor screening level for radon will be less than 2.0 Pico Curies per liter (pCi/L). The USEPA recommended action level for radon in residential dwellings is 4.0 pCi/L. The USEPA has not designated a recommended action level for radon in commercial or industrial buildings.

EDR provided information in their report regarding radon testing for properties within the vicinity of the Site (**Appendix E**). Based on 23 sites tested within zip code 74354, radon concentrations averaged 0.973 pCi/L.

Shaw did not perform testing for radon gas at the Property as a part of this assessment.

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#### 7.0 INTERVIEWS

### 7.1 Interview Summary

The following persons were interviewed to obtain information regarding *recognized environmental* conditions in connection with the Property:

INTERVIEW SUMMARY					
Role	Name	Title/Company	Years Assoc. With Property	Interview Type	
Safety/Environmental Manager	Forrest Hummell	EaglePicher Technologies, LLC	1.5	In person	
Maintenance	John Frisbie	EaglePicher Technologies, LLC	>10	In person	
Chemist	Tom Potts	EaglePicher Technologies, LLC	>10	In person	
Plant Manager, Quapaw	Jim Waugh	EaglePicher Technologies, LLC	>10	In person	
City Pollution Prevention Manager , Former Safety/Environmental Manager EP	Julie Matthews	City of Miami, Formerly Eagle Picher Technologies	>10	Telephone	

Pertinent information from interviews with Mr. Hummell, Mr. Frisbie and Ms. Matthews is discussed in applicable sections of this report. Information from the interview with Mr. Potts and Mr. Waugh is provided below.

According to Mr. Potts and Mr. Waugh, who were chemists at the Property starting in 1976 and 1989, respectively, the MRL performed a number of experimental, development and production activities in the fifty plus years of operation. Some of the first germanium silicon production occurred at the Property until 1963 when production was moved to Quapaw. Products from this lab were used in Bell Labs first transistors in the 1950s. Boron isotope separation was also initiated at the Property until it was also relocated to Quapaw. Cadmium Tellurium semiconductor material was produced at the Property from the 1950s through 1988. Research and Development (R&D) activities included many different types of semiconductor materials and the use of 30-40 different varieties of acids. Gas purification was performed using both filter media and gas chromatography. Impurities, mainly chloride and silicon dioxide, removed from the gas were disposed of as solid waste.

#### 7.2 Attempted Interviews

Interviews attempted by Shaw for this assessment were considered responsive and complete as denoted above.

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#### 8.0 FINDINGS AND OPINIONS

The following summarizes known or suspected environmental conditions in connection with the Property based on information collected during the ESA. For each condition, Shaw provides an opinion of the impact on the Property based on an evaluation of the results of record reviews, site reconnaissance and environmental sampling issues as discussed in this report. Shaw also provides a conclusion and rationale regarding whether or not an environmental condition is a *recognized environmental condition*.

- There are no indications of USTs at the Property. There are no indications of monitoring wells at the Property. Based on the site visit, EDR records and interviews ASTs and USTs are not a *recognized environmental condition* for the Property at this time.
- A drain grate and sump located in the basement of the MRL currently or historically discharges to surface water at an unknown location. The location of this discharge point could not be located and site plans retained by EP Scientific/Fisher Scientific are not available for review. The discharge point of this sump is potentially in an environmentally sensitive area. A part washer was also noted in close proximity to this sump. Based on the lack of information and the potential release of hazardous materials, the discharge through the sump in the basement is considered a *recognized environmental condition* for the Property.
- Hazardous and non-hazardous wastes are handled at the Property. Hazardous wastes are stored in 55-gallon drums in a cinder block hazardous waste storage building shared by EaglePicher and EP Scientific/Fisher Scientific. Based on a limited number records, hazardous waste from EaglePicher, the and EP Scientific/Fisher Scientific include an extensive list of compounds. Historic waste storage and handling areas included numerous locations on the south side of the MRL. The lack of documentation and the reported historic waste storage areas are considered an area of potential concern at the Property.
- Adjacent properties include a number of LUST and UST sites that are hydraulically up gradient and
  possibly connected to the site via an underground storm water culvert. Based on this utility
  connection, distance from the Property and assumed hydraulic gradient other nearby sites identified
  in State Database findings are considered to be an area of potential concern for the Property.
- A release of dichlorosilane reportedly occurred in the southwest corner of the facility. This gaseous release decomposed into silica oxide and hydrochloric acid. The material is pyrophoric and flammable. This release incident and emergency response reportedly did not result in a sustained impact to the environment. However, the storage area where this release occurred was apparently a concrete slab where various waste and hazardous materials had been stored over the years. This pad had been removed at the time of the site visit and only a small gravel area and distressed vegetation remained. This area is considered a *recognized environmental condition* due to the reported waste storage activity, distressed vegetation, and the proximity to the drainage ditch behind the facility.
- There are numerous satellite waste storage areas located throughout the buildings. One area that was
  apparently used for storage of hazardous waste or hazardous material includes the two older sheds
  located west of the Bottle Prep Building, near the most southwestern part of the Property. Shaw was

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not granted access to these older sheds. Shaw considers this an area of potential concern for the Property.

- Discussions with EP Technologies personnel indicated that at least one transformer fire had occurred
  onsite in the early 1980s. The City of Miami reportedly cleaned up the transformer fluid from the
  fire. Documents for the incident and the cleanup were not available. Shaw considers this
  transformer fire a recognized environmental condition.
- The main building was a research and development facility where, for approximately 50 years of operations, many experiments were conducted and production of materials were conducted. Some of these operations conducted in the building, such as gaseous crystal growth, melting of metallic compounds, cutting semiconductor material, etc., were likely to produce dust and emissions that could contaminate the interior surfaces of the building and the ventilation system. This potential residue is considered an area of potential concern for future building renovation or remodeling.
- A drainage ditch runs from west to east near the southern boundary of the Property. Residuals from waste storage areas and drum cleaning operations conducted on the south side of the building had the potential to drain to this ditch. According to EaglePicher personnel, the majority of the material handled in these areas included various acids and metal waste. No staining was observed in the ditch; however, the potential past impact of contaminants on this drainage ditch is considered an *area of potential concern*.

200 B. J. Tunnel Blvd. Miami, OK 74354

#### 9.0 CONCLUSIONS

Shaw has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-00 of the EaglePicher Materials Research Lab located at 200 B. J. Tunnel Blvd. in Miami, Oklahoma. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report. This assessment has revealed the following *recognized environmental conditions* in connection with the Property.

- Based on the lack of information and the potential release of hazardous materials, the discharge through the sump in the basement is considered a recognized environmental condition for the Property.
- The pad where the dichlorosilane release occurred is considered a *recognized environmental* condition due to the reported waste storage activity, distressed vegetation, and the proximity to the drainage ditch behind the facility.
- Because of lack of documents, Shaw considers this transformer fire a recognized environmental condition.
- The main building includes a basement in the central portion. A ramp to this basement is located south of the building just east of the hazardous waste storage area. A drain grate at the bottom of this ramp is connected to a sump located in the basement. A parts washing station is located next to this sump, where staining was evident. There is also a machine shop located in the basement. Site drawings were retained by EP Scientific and the location of the discharge point for this sump was unknown. Shaw considers the sump and the discharge point of this sump a recognized environmental condition.

#### PHASE I ENVIRONMENTAL SITE ASSESSMENT EaglePicher Technologies, LLC Miami 200 B. J. Tunnel Blvd. Miami, OK 74354

#### 10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Shaw Environmental Inc. (Shaw) has performed a Phase I Environmental Site Assessment (ESA) of the EaglePicher Technologies, LLC Materials Research Lab (the Property), located at 200 B. J. Tunnel Blvd. in Miami, Oklahoma. The scope of the ESA was consistent with ASTM Practice E 1527-00.

SHAW ENVIRONMENTAL INC.

John R. Carrow, R.G. Project Manager

Hoi Man Sin

Hoi Man Siu Project Manager

Project No. 115844.03 28 Shaw Environmental Inc.

200 B. J. Tunnel Blvd. Miami, OK 74354

#### 11.0 REFERENCES

ASTM, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," ASTM Designation E 1527-00, Published May 10, 2000.

Environmental Data Resources Inc. (EDR), EaglePicher, Inquiry No. 1420679.2s dated May 12, 2005.

Environmental Data Resources Inc. (EDR), EaglePicher, City Directory Abstract, Inquiry No. 1420679-7 dated May 16, 2005.

Environmental Data Resources Inc. (EDR), Historical Topographic Maps, EaglePicher, Inquiry No. 1420679-4 dated May 16, 2005.

Ottawa County's Warranty Deed and Property Records

USGS Aerial Photograph, Miami Oklahoma, 1995 provided by TerraServer ©.

# APPENDIX A SITE PHOTOGRAPHS

Project No. 115844.03 Shaw Environmental Inc.



Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

Photograph No. 1

Date: May 16, 2005

**Direction: West** 

**Description:** 

Sign at the front entrance to the MRL.



# Photograph No. 2

Date: May 16, 2005

**Direction: West** 

**Description:** 

The front of the MRL.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

#### Photograph No. 3

Date: May 16, 2005

**Direction:** Southeast

#### **Description:**

MRL from the corner of 9<sup>th</sup> and Main St.



## Photograph No. 4

Date: May 16, 2005

**Direction:** Southeast

### **Description:**

EP Scientific/Fisher Scientific MRL in the background.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

## Photograph No. 5

Date: May 16, 2005

**Direction: Northeast** 

#### **Description:**

Rear of the MRL, drainage ditch is in the foreground.



#### Photograph No. 6

Date: May 16, 2005

**Direction: Northwest** 

#### **Description:**

Property boundary behind EP Scientific/Fisher Scientific Laboratory.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

#### Photograph No. 7

Date: May 16, 2005

**Direction:** Southeast

#### **Description:**

Former waste storage area, demolished after dichlorosilane incident.



# Photograph No. 8

Date: May 16, 2005

**Direction: Southeast** 

### **Description:**

Former waste storage area (dichlorosilane incident).



Page 4 of 15



Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

#### Photograph No. 9

Date: May 16, 2005

**Direction:** South

#### **Description:**

Drainage Culvert entering the southwest corner of the property from northwest.



#### Photograph No. 10

Date: May 16, 2005

**Direction: Southwest** 

#### **Description:**

Ramp to the basement with drainage grate which is connected to a sump in the basement.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

## Photograph No. 11

Date: May 16, 2005

**Direction: Southwest** 

#### **Description:**

Parking lot drainage to ditch.



### Photograph No. 12

Date: May 16, 2005

**Direction: Southwest** 

#### **Description:**

Drainage ditch near parking lot drainage.



Page 6 of 15



Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

#### Photograph No. 13

Date: May 16, 2005

**Direction:** South

#### **Description:**

Drainage ditch near east end of the property.



#### Photograph No. 14

Date: May 16, 2005

**Direction: West** 

#### **Description:**

Loading dock for EP Scientific/Fisher Scientific bottle prep.





Client: Eagle Picher Technologies, LLC **Project Number:** 115844.03 Location: 200 B. J. Tunnel Blvd., Miami, OK Photographer: John Carrow

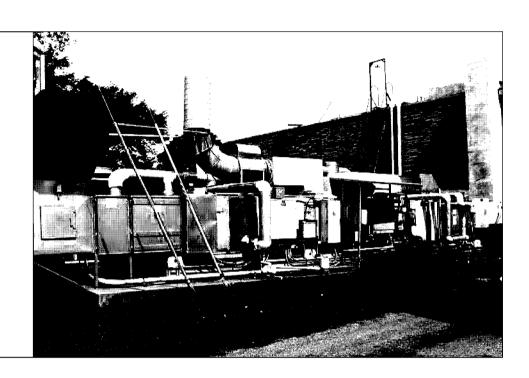
# Photograph No. 15

Date: May 16, 2005

Direction: Northwest

#### **Description:**

Laboratory exhaust and ventilation.



### Photograph No. 16

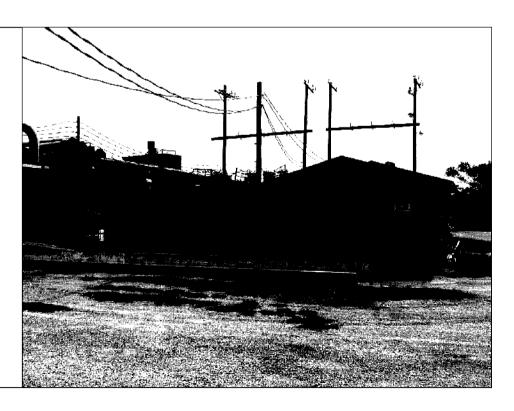
Date: May 16, 2005

**Direction:** East

### **Description:**

Hazardous waste storage

Building.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

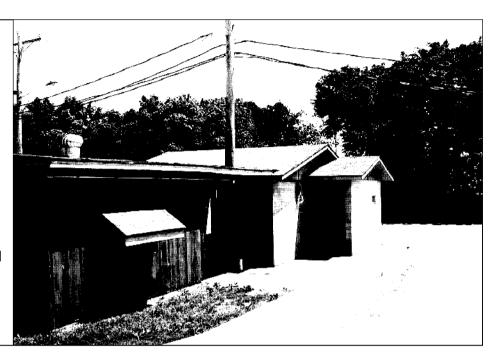
#### Photograph No. 17

Date: May 16, 2005

Direction: South

#### **Description:**

Hazardous waste storage, shared by EaglePicher and EP Scientific.



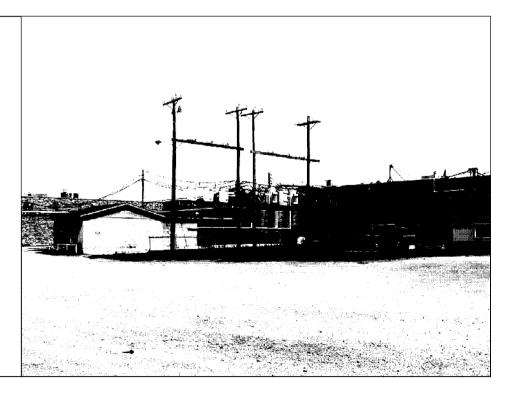
#### Photograph No. 18

Date: May 16, 2005

**Direction: Northwest** 

#### **Description:**

Transformer rack, hazardous waste storage (background) and ramp to the basement (behind transformer).





John Carrow

Client: Eagle Picher Technologies, LLC **Project Number:** 115844.03 Location: 200 B. J. Tunnel Blvd., Miami, OK Photographer:

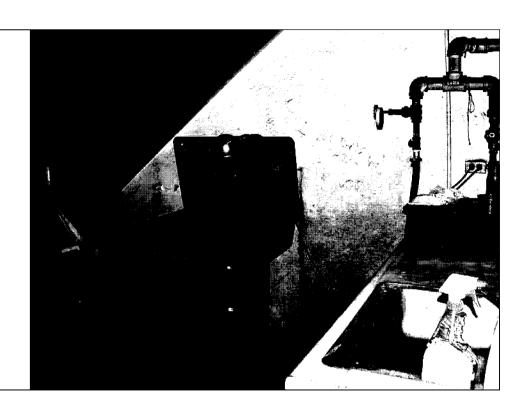
Photograph No. 19

Date: May 16, 2005

Direction:

**Description:** 

Part washer in the basement, sump is located to the left.



Photograph No. 20

Date: May 16, 2005

Direction:

**Description:** 

Lithium production solid waste storage.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

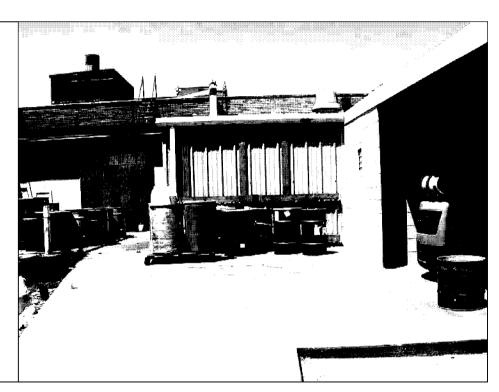
#### Photograph No. 21

Date: May 16, 2005

**Direction: North** 

#### **Description:**

Lithium production solid waste storage.



# Photograph No. 22

Date: May 16, 2005

Direction: East

#### **Description:**

Lithium production solid waste

storage.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

Photograph No. 23

Date: May 16, 2005

**Direction: West** 

**Description:** 

Lithium drum cleaning area.



# Photograph No. 24

Date: May 16, 2005

Direction: Inside building

**Description:** 

Drums of Lithium product inside Suite A.





Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

## Photograph No. 25

Date: May 16, 2005

**Direction: Southwest** 

#### **Description:**

EP Scientific/Fisher Scientific hazardous material storage.



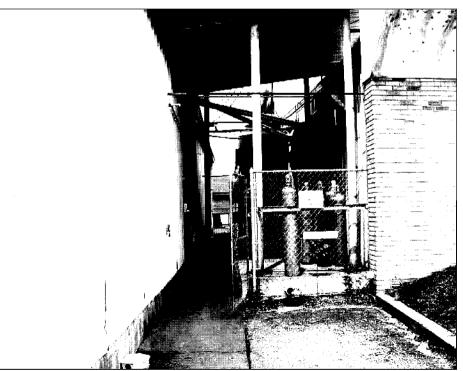
### Photograph No. 26

Date: May 16, 2005

Direction:

#### **Description:**

Breezeway between EP Scientific Analytical and EP Scientific bottle prep.



Page 13 of 15



115844.03

John Carrow

Client:Eagle Picher Technologies, LLCProject Number:Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:

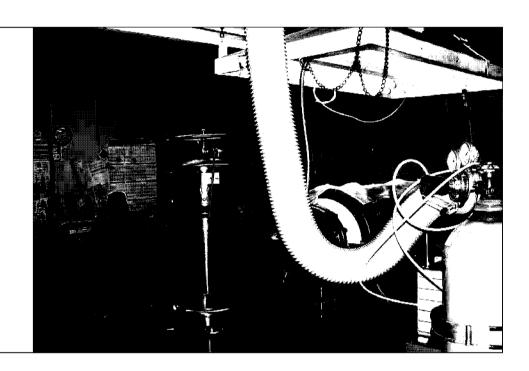
Photograph No. 27

Date: May 16, 2005

Direction:

**Description:** 

Gas purification.



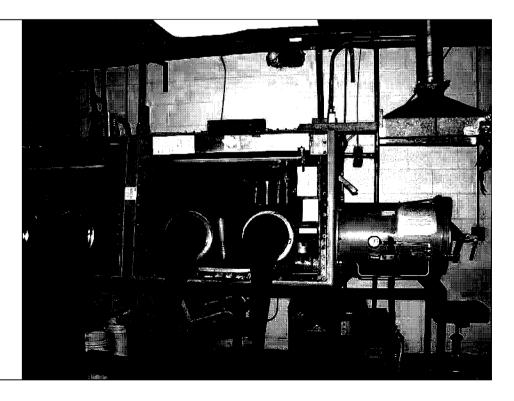
### Photograph No. 28

Date: May 16, 2005

Direction:

**Description:** 

Lithium production area.



Page 14 of 15



Client:Eagle Picher Technologies, LLCProject Number:115844.03Location:200 B. J. Tunnel Blvd., Miami, OKPhotographer:John Carrow

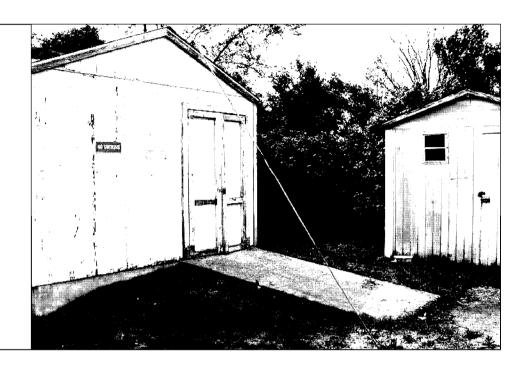
### Photograph No. 29

Date: May 16, 2005

**Direction:** Southeast

#### **Description:**

Apparent historic hazardous material/waste.



# APPENDIX B SITE VICINITY MAP

Project No. 115844.03 Shaw Environmental Inc.

EaglePicher Miami Site Vicinity Map Rocor Inc. 11th Ave NE 1014 N. Main St. Miami, OK 10th Ave NW Historic RTE-66 10th Ave NE Total/Quad States Dist 901 North Main St. Miami, OK Eagle Picher Miami 200 BJ Tunnel Blvd. Miami, OK Continental Baking 830 NE D \$ E 9th Blvd Bj Tunnell Blvd North Main Express 8 845 N. Main Street Miami, OK EaglePicher Environmental Svc 3 36 BJ Tunnel Miami, OK John's Diesel 821 D NE Mami, OK

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Copyright 1999 by Compusearch Micromarketing Data and Systems Ltd.

0 yds

100

300

200

# APPENDIX C OTTAWA COUNTY RECORDS

Project No. 115844.03 Shaw Environmental Inc.

Eagle-Picher Technologies, LLC "C" and Porter Streets Joplin, Missouri 64801

#### OUTY CLAIM DEED

THIS INDENTURE, made this 23rd day of February

1998, between GRAFTOR, of Hamiltoncounty, State of Obio , party

of the first part, and GRAFTER, party of the ascend part

Eagle-Picher Technologies, LLC, a Delaware limited liability company

WITHESSETH, that party of the first part, in consideration of
the sum of Ten Dollars (\$10.00) to it duly paid, the receipt
whereof is hereby acknowledged, does hereby quit-claim, grant,
bargain, sell and convey unto the said party of the second part,
and to its heirs and assigns forever, all its right, title,
interest and estate, both at law and in equity, of in and to, the
following described real estate, situated in the County of
Ottawa , State of Oklahoma, to-wit:

#### LEGAL DESCRIPTION

See Schedule A attached hereto.

Together with all and singular the hereditaments and appurtenances thereunto belonging.

TO HAVE AND TO HOLD the above granted premises unto the said party of the second part  $y_{-S}^{\,t}$  being and assigns forever.

IN WITHERS WHEREOF, the said party of the first part  $\underline{y}$  hereunto set <u>its</u> hand the day and year above written.

Eagle-Picher Industries, Inc. ИШ

STATE OF NewYork COUNTY OF Mein Voy- )

Before me, the undersigned, a Notary Public, within and for said County and State, on this 241 day of homeon 1998, personally appeared Action to me known to be the identical person who subscribed the name of Forth Public a corporation, to the within and foregoing instrument as its President, and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of said corporation, for the uses and purposes therein set forth.

IN WITHERS WHERMOF, I have hereunto set my hand and affixed my notarial seal the day and year last above written.  $\$ 

My Commission Expires:

Notary Public CATHERINE JONES
Notary Public, State of New York
No. 01 J05088551 Qualified in New York County Commission Expires 11/17/1999

SITE 50

SITE 48

SITE 47

#### SCHEDULE I

#### LEGAL DESCRIPTION

Lots 1 to 8, both inclusive in Block 3, and all of Block 2, in Wea Addition, Plat No. 4 to the City of Miami, Ottawa County, Oklahoma, according to the recorded plat thereof; AND a portion of "A" Street Northeast, described as follows: Beginning at a point on the Southwest corner of Block 2, Wea Addition PlataNo. 4; thence North 350 feet to the Northuest corner of said Block 2 in said subdivision; thence West 60 feet to the Northeast corner of Lot 1 in Block 3 of Wea Addition; thence South 350 feet to the Southeast corner of Lot 14 in Block 3; thence East 60 feet to the point of beginning.

A tract of land in the SWL of the NEk of Section 14, Township 29 North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma, more particularly described as follows, to-wit: Beginning at the Southwest corner of said SWk NEk; thence North 660 feet; thence East 100 feet; thence South 660 feet; thence West 100 feet to the point of beginning.

A tract of land in the SEk of the NWk of Section 14, Township 29 North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma, more particularly described as follows, to-wit:
Beginning at the Southeast corner of said SEk NWk; thence West 100 feet; thence North 1000 feet; thence East 100 feet; thence South 1000 feet to the point of biginning.

All that part of Section 25, Township 29 North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma, lying West of U. S. Highway 66 and a strip 40 feet wide along the South line of the highway, LESS 1 acre described as follows, to-wit: Beginning at a point N 89° 43' E 714.38 feet from the Southwest corner of said SWk NWk; and on the South boundary line thereof; thence N 62° 43' E along the North righetof-way line of U. S. Highway 66 a distance of 379.75 feet FOR A POINT OF BEGINNING; thence N 27° 17' W 208.5 feet; thence N 62° 43' E 208.5 feet; thence S 27° 17' E 208.5 feet to the North right of way line of said U. S. Highway 66; thence S 62° 43' W along said right-of-way line 208.5 feet to the point of beginning.

The NY of the SWA and the NY of the SY of the SWA, less GRDA in Section 31, Township 29 North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma.

A tract of land in the St of the NWt of Section 31, Township 29
North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma,
more particularly described as follows, to-wit:
Beginning at a point 551.36 feet South of the Northwest corner of
SWL NWL; thence S 64° 16' E 159.96 feet; thence S 64° 16' E 318.24 feet;
Thence S 64° 27.47' E 588.35 feet; thence S 84° 56.41' E 1498.93 feet;
thence N 37° 19' E 229.35 feet to the East Line of St NWk; thence South
thence N 37° 19' E 229.35 feet to the East Line of St NWk;

thence North to the point of beginning.

# BOOK 0620 PAGE 838

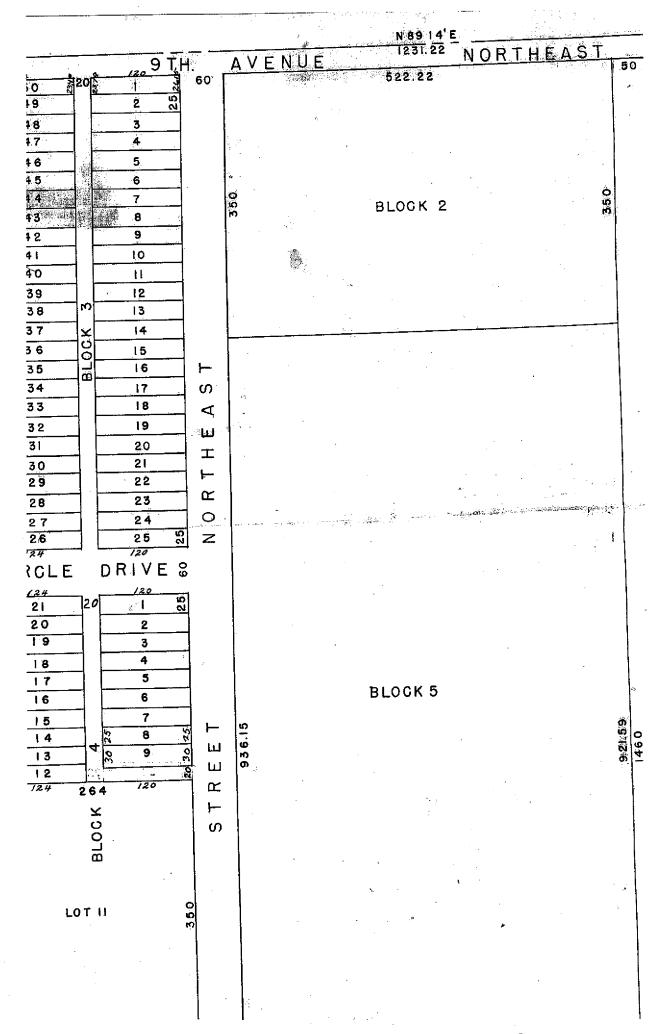
The Sh of the NWh and the Sh of Section 24, Township 29 North, Range 23 East of the Indian Meridian, Ottawa County, Oklahoma, LESS Railroad

PROPERTY ADDRESS: Props. located in Ottawa County, OK

47-22568 48-22570 50-22569 Schedule A

All property of Eagle-Picher Industries, Inc., located in Ottawa County at:

- 1) 36 & 200 B.J. Tunnel Boulevard East
- 2) 737 & 798 Highway 69A
- 3) Properties located in Ottawa County



## WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

BOOK 362 FASE 461

THAT WEA TOWNSITE CORPORATION, AN Oklahoma Corporation

part Y of the first part, in consideration of the sum of One Dollar (\$1.00) and other good and valuable consideration

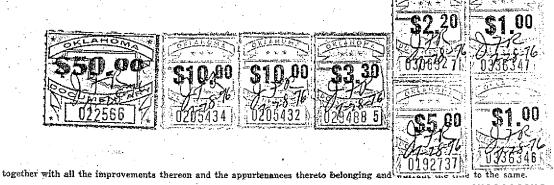
the receipt of which is hereby acknowledged do

by these presents grant, bargain, sell and convey unto

EAGLE-PICHER INDUSTRIES, INC.

SUCCESSOTS of the second part it's heigs and assigns, all of the following described real property and premises situated part y Ottawa County, State of Oklahoma, to-wit; in

Lots 1, 2, 3, 4, 5, 6, 7, and 8 in Block 3, in WEA ADDITION, PLAT 4, to the City of Miami, Ottawa County, Oklahoma, according to the recorded plat thereof,



TO HAVE AND TO HOLD said described premises unto part y

of the second part it's forever, free, clear, discharged of and from all former grants, titles, charges, judgments, taxes, mortgages and other liens

and incumbrances of whatsoever nature.

My commission expire

Signed and sealed this 28th	day of July	19 76. WEA TOWNSITE By Llea 7	CORPORATION
OKI AND SEC	retary		President
TATE OF OKLAHOMA,	ss:		
ountly of Annual Control			
Before me,			a Notary Public, within
r said County and State, on this.	day of		A. D. 19, personally app
<u> </u>			
A CONTRACTOR	to me known to be t	he identical person	who executed the within and fore
	instrument, and acknow	owledged to me that	
	free and volu	intary act and deed, for	the uses and purposes therein set
	WITNESS my hand	and official seal the day	and year last above written.
			Notary Publ

(OVER)

800K 362 PAGE 462

# 3156 X

STATE OF OKLAHOMA

COUNTY OF OTTAWA

The foregoing instrument was acknowledged before me this Jack day of July, 1976 by John F. Robinson, President, WEA TOWNSITE CORPORATION, an Oklahoma Corporation on behalf of the Corporation.

oTA COMMISSION expires:

Helew L. Jaurnerpake Novary Public

COLLEGE GRAPATA SS THE TOTAL TOTAL TO THE THE COLLEGE STATE OF THE STEEDS OF THE STATE OF THE ST

eg, 30,1978

76 JJ. 28 Pa 4: 24

July CLAN Princell

WARRANTY DEED

#3155

Form No. 3

1976

# QUIT CLAIM DEED

BOOK 362 MAGE 459

THIS INDENTURE, made and entered into this 28th day of July by and between WEA TOWNSITE CORPORATION, an Oklahoma Corporation,

of the first part, and

EAGLE-PICHER INDUSTRIES, INC.

of the second part;

WITNESSETH, That the said part Y

of the first part, for and in consideration of the sum of

One (\$1.00)

duly paid, the receipt whereof is hereby acknowledged, do es hereby quit claim, grant, bargain, sell and convey unto the said part y of the second part, and to its successors xhexx and assigns, forever, all its right, title, interest and estate, both at law and in equity, of, in and to all of the following described real estate situated in the County of and State of Oklahoma, to-wit; Ottawa

> Beginning at a point on the Southwest Corner of Block Two (2), WEA ADDITION, PLAT NO. 4, to the City of Miami, Ottawa County, State of Oklahoma; thence north 350 feet to the Northwest Corner of said Block Two (2) in said subdivision; thence west 60 feet to the Northeast Corner of Lot One (1) in Block Three (3) of Wea Addition; thence south 201.15 feet to the Southeast Corner of Lot Eight (8) in Block Three (3); thence east 30 feet; thence south to a point 30 feet east of the Southwest Corner of Block Two (2) in Wea Addition Plat No. 4; and thence east 30 feet to the point of beginning.

TO HAVE AND TO HOLD THE SAME, Together with all and singular the hereditaments and appurtenances thereunto of the second part, its successorsments belonging, or in anywise appertaining unto the said part Y and assigns, so that neither the said part Y of the first part nor any person in its half, shall or will hereafter claim or demand any right or title to the said premises or any part thereof; but they, and every one of them, shall by these presents be excluded and forever barred.

IN WITHESE WHEREOF, The said party and seal . the day and year first above written.

of the first part ha 5 hereunto set

ATTEST FULL

WEA TOWNSITE CORPORATION

STATE OF OKLAHOMA.

M. Out is

County of

Before me

ACKNOWLEDGMENT

, a Notary Public in and for said County and State on this

day of

, personally appeared

who executed the within and foregoing to me know to be the identical person executed the same as instrument and acknowledged to me that free and voluntary act and deed for the uses and purposes therein set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

My commission expires .

19

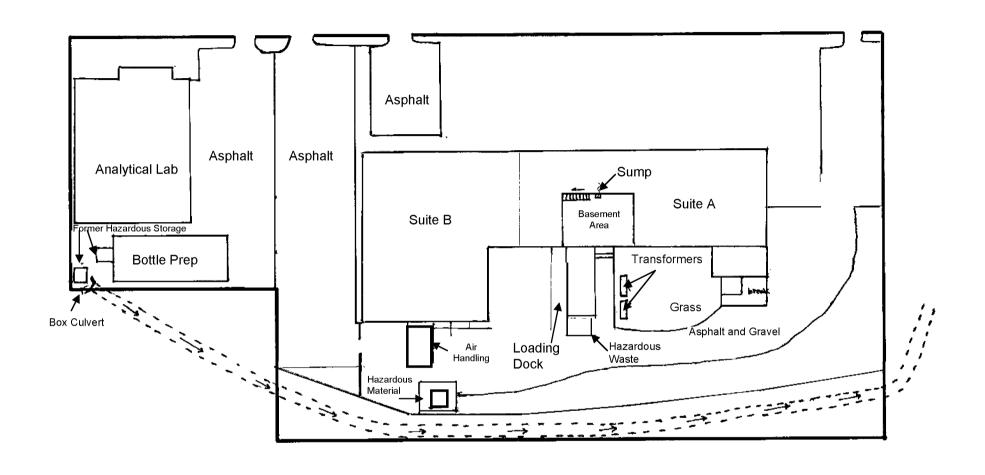
Notary Public.

		to me known			ned the name of	the maker there
		acknowledged and as the fro poses therein WITNES	ing instrument as to me that he exercise and voluntary as set forth.  S my hand and off on expires Alfala.	person who subscribits President cuted the same as het and deed of such tical seal the day a constitute 30 for Lyange Lyange 10 for Lyange 10	t is free and voin corporation, for nd year last ab	entary act and de the uses and pu ove written. 1978
TOTAL STATE	веок 362	2 PASE 460			<i>V</i>	Notary Public.
DEED						
QUIT CLAIM DEEL	70					

# APPENDIX D

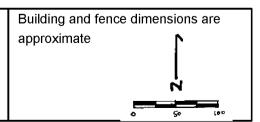
SITE PLAN

Project No. 115844.03 Shaw Environmental Inc.





Appendix C – Figure 1 – Site Plan EaglePicher Miami Facility 200 B.J. Tunnel Blvd. Miami, Oklahoma Prepared: 06/30/05



# APPENDIX E REGULATORY DATABASE REPORT

Project No. 115844.03 Shaw Environmental Inc.



# The EDR Radius Map with GeoCheck®

EaglePicher Technologies, LLC Miami 200 B.J. Tunnel Blvd. Miami, OK 74354

Inquiry Number: 1420679.2s

May 12, 2005

# The Standard in Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com

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Physical Setting Source Records Searched	A-22

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

#### Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

#### TARGET PROPERTY INFORMATION

#### ADDRESS

200 B.J. TUNNEL BLVD. MIAMI, OK 74354

#### COORDINATES

Latitude (North): 36.885400 - 36° 53' 7.4" Longitude (West): 94.874900 - 94° 52' 29.6"

Universal Tranverse Mercator: Zone 15 UTM X (Meters): 332916.3 UTM Y (Meters): 4083597.8

Elevation: 782 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 36094-H7 PICHER, OK KS Source: USGS 7.5 min quad index

#### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
EAGLE-PICHER TECHNOLOGIES LLC 200 BJ TUNNELL BLVD	RCRA-SQG FINDS	OKD007150709
MIAMI, OK 74354		

#### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List

Proposed NPL.....Proposed National Priority List Sites

CERCLIS\_\_\_\_\_Comprehensive Environmental Response, Compensation, and Liability Information

System

CERC-NFRAP...... CERCLIS No Further Remedial Action Planned

CORRACTS...... Corrective Action Report

RCRA-TSDF...... Resource Conservation and Recovery Act Information RCRA-LQG...... Resource Conservation and Recovery Act Information ERNS...... Emergency Response Notification System

#### STATE ASTM STANDARD

SHWS\_\_\_\_\_\_Voluntary Cleanup & Superfund Site Status Report SWF/LF......Permitted Solid Waste Disposal & Processing Facilities

VCP.....Voluntary Cleanup Site Inventory

INDIAN UST......USTs on Indian Land

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

#### FEDERAL ASTM SUPPLEMENTAL

CONSENT..... Superfund (CERCLA) Consent Decrees

ROD......Records Of Decision

Delisted NPL...... National Priority List Deletions

HMIRS..... Hazardous Materials Information Reporting System

MLTS..... Material Licensing Tracking System

MINES..... Mines Master Index File NPL Liens\_\_\_\_\_ Federal Superfund Liens FUDS...... Formerly Used Defense Sites UMTRA..... Uranium Mill Tailings Sites ODI\_\_\_\_\_\_Open Dump Inventory
US ENG CONTROLS\_\_\_\_\_\_Engineering Controls Sites List

INDIAN RESERV.....Indian Reservations

DOD...... Department of Defense Sites

RAATS......RCRA Administrative Action Tracking System TRIS...... Toxic Chemical Release Inventory System

TSCA\_\_\_\_\_ Toxic Substances Control Act SSTS...... Section 7 Tracking Systems

FTTS INSP...... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, &

Rodenticide Act)/TSCA (Toxic Substances Control Act)

#### STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Aboveground Storage Tanks

LAST\_\_\_\_\_Leaking Aboveground Storage Tanks List OK COMPLAINT\_\_\_\_\_Oklahoma Complaint System Database

#### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS..... A Listing of Brownfields Sites US INST CONTROL..... Sites with Institutional Controls

Brownfields..... Brownfield Sites

VCP\_\_\_\_\_\_Voluntary Cleanup Site Inventory INST CONTROL\_\_\_\_\_\_Institutional Control Sites

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### FEDERAL ASTM STANDARD

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 03/13/2005 has revealed that there are 2 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
EAGLE-PICHER ENVIRONMENTAL SVC		1/8 - 1/4W	B4	7
COMMERCE PLASTICS FIBERGLASS R		1/8 - 1/4W	B7	11

#### STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Oklahoma Corporation Commission's Leaking UST list.

A review of the LUST list, as provided by EDR, and dated 03/21/2003 has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
QUAD STATES DISTRIBUTING, INC ROCOR, INC. CITY OF MIAMI - STREET DEPT. AUTO DETAIL SHOP	901 N MAIN 1014 N MAIN 5TH / D STREET NE 501 N MAIN	1/8 - 1/4W 1/8 - 1/4NW 1/4 - 1/2SSE 1/4 - 1/2SSW		10 11 12 13
Lower Elevation	Address	Dist / Dir	Map ID	Page
CONTINENTAL BAKING CO.	830 NE D	0 - 1/8 ESE	A2	6

TC1420679.2s EXECUTIVE SUMMARY 3

Lower Elevation	Address	Dist / Dir	Map ID	Page
JOHN'S DIESEL SERVICE	821 D NE	0 - 1/8 ESE	А3	7

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Oklahoma Corporation Commission's State UST List, List II Version.

A review of the UST list, as provided by EDR, and dated 03/21/2003 has revealed that there are 6 UST sites within approximately 0.25 miles of the target property.

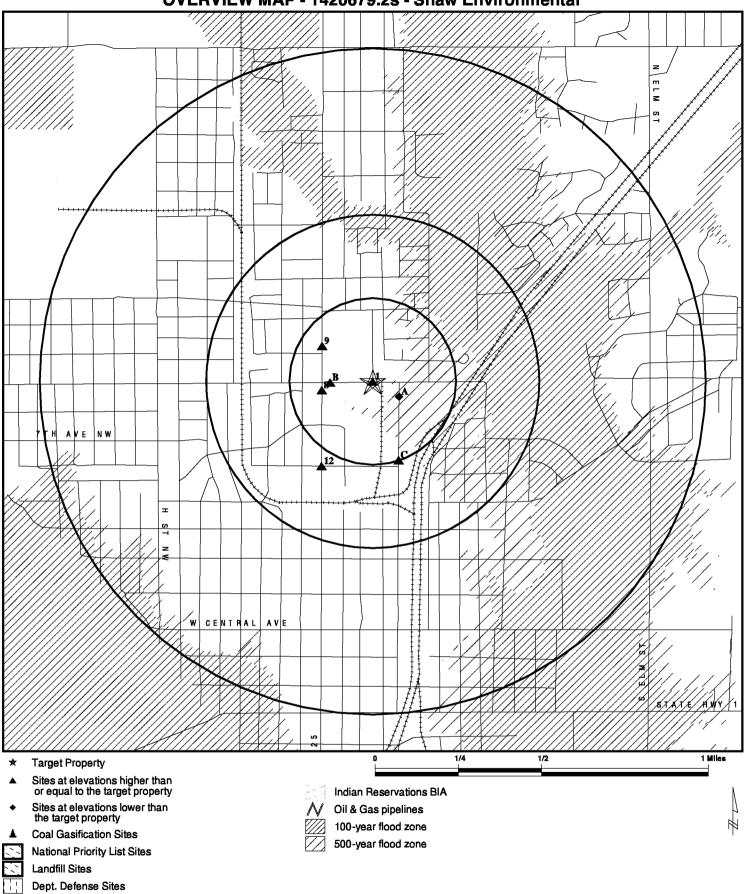
Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
TOTAL STORES	901 N MAIN	1/8 - 1/4W	B5	8
NORTH MAIN EXPRESS	845 N MAIN	1/8 - 1/4W	8	11
ROCOR, INC.	1014 N MAIN	1/8 - 1/4NW	9	11
OTTAWA COUNTY FARM SUPPLY	530 D NE	1/8 - 1/4SSE	C10	12
Lower Elevation	Address	Dist / Dir	Map ID	Page
CONTINENTAL BAKING CO.	830 NE D	0 - 1/8 ESE		6
JOHN'S DIESEL SERVICE	821 D NE	0 - 1/8 ESE		7

# **EXECUTIVE SUMMARY**

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
BLUEJACKET ROAD DUMP	CERC-NFRAP
OKLA DEPT OF TRANSPORTATION	LUST, UST
PHILLIPS #27059	LUST, UST
SMITH'S CONVENIENCE STORE	UST
SMILE-A-MILE GAS-N-SERVE	UST
MIAMI MAINTENANCE FACILITY	UST
MIAMI MUNICIPAL AIRPORT COLLINS CONSTRUCTION CO OF MIAMI INC MIAMI CITY OF UTILITY DEPARTMENT	AST RCRA-SQG, FINDS RCRA-SQG, FINDS
CITY OF MIAMI MUNICIPAL LANDFILL	FINDS
MIAMI MUNICIPAL LANDFILL	ODI

# **OVERVIEW MAP - 1420679.2s - Shaw Environmental**



**TARGET PROPERTY:** ADDRESS:

CITY/STATE/ZIP:

LAT/LONG:

EaglePicher Technologies, LLC Miami 200 B.J. Tunnel Blvd. Miami OK 74354

36.8854 / 94.8749

CUSTOMER: Shaw Environmental

John Carrow CONTACT: INQUIRY#: 1420679.2s

DATE: May 12, 2005 2:19 pm

### **DETAIL MAP - 1420679.2s - Shaw Environmental** A ST N N MAIN S B ST C ST NE A ST NE 줆 GOODRICH BLVD GOODRICH BLVD 12TH AVE NE 12TH AVE NE 11TH AVE NW 11TH AVE NW C ST NE N MAIN ST 11TH AVE NE B ST NE C ST NE 10TH AVE 10TH AVE NW 10TH AVE NE 10TH AVE NE 10TH AVE NE N MAIN ST A ST BLVD NE E BA TUNNELL BL BJJUNNE W BJ TUNNELL BLVD W BJ TUNNELL BLVD 4 BJ TUNNELL BLVD NE ARK AVE BST CIRCLE DR CIRCLE DR NW A ST NE BITH AVE NE AST BST 5TH AVE NW 5TH AVE NW 5TH AVE NE 5TH AVE NE 5TH AVE NE C11 1/16 1/4 Miles **Target Property** Sites at elevations higher than or equal to the target property Indian Reservations BIA Sites at elevations lower than Oil & Gas pipelines the target property 100-year flood zone Coal Gasification Sites 500-year flood zone Sensitive Receptors

**TARGET PROPERTY:** EaglePicher Technologies, LLC Miami **CUSTOMER:** Shaw Environmental ADDRESS: 200 B.J. Tunnel Blvd. CONTACT: John Carrow CITY/STATE/ZIP: Miami OK 74354 INQUIRY #: 1420679.2s 36.8854 / 94.8749 LAT/LONG: DATE: May 12, 2005 2:19 pm Copyright © 2005 EDR, Inc. © 2004 GDT, Inc. Rel. 07/2004. All Rights Reserved.

National Priority List Sites

Landfill Sites
Dept. Defense Sites

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	>1	Total Plotted
FEDERAL ASTM STANDARI	2							
NPL Proposed NPL CERCLIS CERC-NFRAP CORRACTS RCRA TSD RCRA Lg. Quan. Gen. RCRA Sm. Quan. Gen. ERNS	X	1.000 1.000 0.500 0.250 1.000 0.500 0.250 0.250 TP	0 0 0 0 0 0 0 0 NR	0 0 0 0 0 0 0 2 NR	0 0 0 NR 0 0 NR NR NR	0 0 NR NR 0 NR NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 0 0
STATE ASTM STANDARD								
SHWS State Landfill LUST UST VCP INDIAN UST INDIAN LUST		1.000 0.500 0.500 0.250 0.500 0.250 0.500	0 0 2 2 0 0	0 0 2 4 0 0	0 0 2 NR 0 NR 0	0 NR NR NR NR NR	NR NR NR NR NR NR	0 0 6 6 0 0
FEDERAL ASTM SUPPLEME	ENTAL							
CONSENT ROD Delisted NPL FINDS HMIRS MLTS MINES NPL Liens PADS FUDS UMTRA ODI US ENG CONTROLS INDIAN RESERV DOD RAATS TRIS TSCA SSTS FTTS	X	1.000 1.000 1.000 TP TP TP 0.250 TP TP 1.000 0.500 0.500 0.500 1.000 TP TP TP	0 0 0 R RR 0 RR 0 0 0 0 0 0 RR RR RR NR NR NR NR NR NR NR NR NR	0 0 0 R R R 0 R R 0 0 0 0 0 0 R R R R R	0 0 0 R R R R R R O 0 0 0 0 0 R R R R R	0 0 0 R R R R R R O R R R R O O R R R R	N	
STATE OR LOCAL ASTM SU	JPPLEMENTAI	<u>-</u>						
AST		TP	NR	NR	NR	NR	NR	0

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LAST OK Complaint		TP TP	NR NR	NR NR	NR NR	NR NR	NR NR	0 0
EDR PROPRIETARY HISTOR	RICAL DATAB	ASES						
Coal Gas		1.000	0	0	0	0	NR	0
BROWNFIELDS DATABASES								
US BROWNFIELDS US INST CONTROL Brownfields VCP INST CONTROL		0.500 0.500 0.500 0.500 0.500	0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0

### NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Distance (ft.) Elevation

EDR ID Number Database(s) **EPA ID Number** 

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

EAGLE-PICHER TECHNOLOGIES LLC

200 BJ TUNNELL BLVD Property

MIAMI, OK 74354

RCRAInfo:

Actual: 782 ft.

Target

GRANARA HOLNINGS B.V. Owner:

(000) 000-0000

EPA ID: OKD007150709 DALE KELLER Contact: (918) 540-1507

Small Quantity Generator Classification:

TSDF Activities: Not reported

**BIENNIAL REPORTS:** 

Last Biennial Reporting Year: 2001

<u>Waste</u>	<u>Quantity (Lbs)</u>	<u>Waste</u>	Quantity (Lbs)
D001	6596.00	D002	3378.00
D003	3531.00	D004	22476.00
D006	26154.00	D007	28454.00
D008	3678.00	D009	3545.00
D010	26154.00	F003	6596.00
F005	6596.00	LABP	1344.00
LIOAA	459.00		

Violation Status: Violations exist

Regulation Violated: job title and name in TR

Area of Violation: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

Date Violation Determined: 09/16/2003 Actual Date Achieved Compliance: 10/10/2003

There are 1 violation record(s) reported at this site:

Evaluation Area of Violation GENERATOR-ALL REQUIREMENTS (OVERSIGHT) Compliance Evaluation Inspection

NY MANIFEST

Click this hyperlink while viewing on your computer to access additional NY MANIFEST detail in the EDR Site Report.

FINDS:

Other Pertinent Environmental Activity Identified at Site:

5802316

Aerometric Information Retrieval System/AIRS Facility Subsystem Resource Conservation and Recovery Act Information system

Toxics Release Inventory

CONTINENTAL BAKING CO. LUST U001885308 A2 **ESE** 830 NE D UST N/A

< 1/8 MIAMI, OK 74354

480 ft.

Site 1 of 2 in cluster A

Relative: LUST:

Lower Facility ID:

Alt Event ID: 5802316\*6E-272 Actual: Facility Status: CLOSED 04-93 778 ft. Report Date: 11/5/1992 0:00:00

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Date of

Compliance

20031010

RCRA-SQG

**FINDS** 

1000279379

OKD007150709

Map ID MAP FINDINGS

Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

CONTINENTAL BAKING CO. (Continued) U001885308

Tank ID:

Tank ID:

Tank Capacity:

Tank Capacity:

4000

550

LANCE LOWE Investor:

UST:

Facility ID: 5802316 Installed Date: 1/1/1965 0:00:00 Tank Status: Permanently Out of Use

K C JEFFRIES OIL CO Owner:

PO BX 548 Owner Address:

Miami, OK 74354

Product: Diesel

АЗ JOHN'S DIESEL SERVICE LUST U001885329

821 D NE UST N/A

ESE < 1/8 MIAMI, OK 74354

500 ft.

Site 2 of 2 in cluster A

Relative: LUST:

Lower

Facility ID: 5808494

Alt Event ID: 5808494\*064-0944 Actual: Facility Status: **CLOSED 11-93** 778 ft. 9/24/1993 0:00:00 Report Date: LANCE LOWE Investor:

UST:

5808494 Facility ID: Installed Date: 5/5/1974 0:00:00 Tank Status: Permanently Out of Use RICHMOND OIL CO Owner: 400 D SE BOX 619 Owner Address:

Miami, OK 74354

Product: Not Listed

В4 EAGLE-PICHER ENVIRONMENTAL SVC RCRA-SQG 1000279380 **FINDS** OKD982760191

West 36 BJ TUNNELL BLVD 1/8-1/4 MIAMI, OK 74354

675 ft.

Site 1 of 4 in cluster B

Relative: Higher Actual:

RCRAInfo:

**EAGLE PICHER IND** Owner:

(000) 000-0000 OKD982760191

783 ft. EPA ID:

Contact: MARK THOMPSON

(918) 540-1507

Classification: Small Quantity Generator

TSDF Activities: Not reported

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

EAGLE-PICHER ENVIRONMENTAL SVC (Continued)

1000279380

N/A

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site: Resource Conservation and Recovery Act Information system

B5 TOTAL STORES UST U001885334

West 901 N MAIN 1/8-1/4 MIAMI, OK 74354 801 ft.

Site 2 of 4 in cluster B

Relative: Higher

UST:

Facility ID: 5809658 Tank ID: 1

Actual: Installed Date: 5/6/1977 0:00:00 Tank Capacity: 4000

783 ft. Tank Status: Permanently Out of Use Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

 Facility ID:
 5809658
 Tank ID:
 2

 Installed Date:
 5/6/1977 0:00:00
 Tank Capacity:
 4000

 Tank Status:
 Permanently Out of Use

Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

 Facility ID:
 5809658
 Tank ID:
 3

 Installed Date:
 5/6/1970 0:00:00
 Tank Capacity:
 3000

 Tank Status:
 Permanently Out of Use

Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

 Facility ID:
 5809658
 Tank ID:
 4

 Installed Date:
 5/6/1970 0:00:00
 Tank Capacity:
 3000

 Tank Status:
 Permanently Out of Use

Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

Map ID MAP FINDINGS

Direction Distance Distance (ft.) Elevation Site

5

6

3000

1000

Not reported

Not reported

10

4000

2000

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

EDR ID Number **EPA ID Number** 

Database(s)

TOTAL STORES (Continued)

U001885334

Facility ID: 5809658 Installed Date: 5/6/1970 0:00:00 Tank Status: Permanently Out of Use

Lakeland Petroleum Corporation Owner:

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Diesel

5809658 Facility ID: Installed Date: 5/6/1970 0:00:00 Tank Status: Permanently Out of Use

Lakeland Petroleum Corporation Owner: Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Diesel

5809658 Facility ID: Installed Date: 5/6/1970 0:00:00 Tank Status: Permanently Out of Use

Lakeland Petroleum Corporation Owner:

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Diesel

5809658 Facility ID:

Installed Date: Not reported

Tank Status: Permanently Out of Use Owner: Lakeland Petroleum Corporation

P.O. Box 452378 Owner Address:

Grove, OK 74344

Product: Gasoline

5809658 Facility ID:

Installed Date: Not reported

Tank Status: Permanently Out of Use Owner: Lakeland Petroleum Corporation

P.O. Box 452378 Owner Address:

Grove, OK 74344

Product: Gasoline

Facility ID: 5809658 Installed Date: 1/1/1992 0:00:00 Tank Status: Currently in Use

Lakeland Petroleum Corporation Owner:

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

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Map ID Direction Distance Distance (ft.)

Site

Elevation

#### MAP FINDINGS

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

11

12

13

14

1000

6000

1000

8000

Database(s)

EDR ID Number EPA ID Number

TOTAL STORES (Continued)

U001885334

Facility ID: 5809658
Installed Date: 1/1/1992 0:00:00
Tank Status: Currently in Use

Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Gasoline

Facility ID: 5809658 Installed Date: Not reported

Tank Status: Permanently Out of Use
Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Not Listed

Facility ID: 5809658 Installed Date: 1/1/1992 0:00:00

Tank Status: Currently in Use
Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Diesel

Facility ID: 5809658 Installed Date: Not reported

Tank Status: Permanently Out of Use
Owner: Lakeland Petroleum Corporation

Owner Address: P.O. Box 452378

Grove, OK 74344

Product: Used Oil

QUAD STATES DISTRIBUTING, INC

West 901 N MAIN 1/8-1/4 MIAMI, OK 74354

LUST:

801 ft.

В6

Site 3 of 4 in cluster B

Relative: Higher

Facility ID: 5809658

Actual: Actual: Facility Status: CLOSED 02-96

Report Date: 12/10/1991 0:00:00 Investor: LANCE LOWE

LUST S103840254

N/A

MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Site Database(s) **EPA ID Number** 

В7 COMMERCE PLASTICS FIBERGLASS REINFORCE RCRA-SQG 1000834557 OKD987095403

West 900 N. MAIN ST **FINDS** 

1/8-1/4

NORTH MIAMI, OK 74358

811 ft.

Site 4 of 4 in cluster B

Relative: Higher

RCRAInfo:

Owner:

JOHNNY JONES

Actual: 783 ft.

(918) 675-4506 OKD987095403 EPA ID:

Contact:

JOHNNY JONES (918) 675-4506

Small Quantity Generator

Classification: TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Aerometric Information Retrieval System/AIRS Facility Subsystem Resource Conservation and Recovery Act Information system

8 NORTH MAIN EXPRESS UST U001885324 N/A

West 845 N MAIN 1/8-1/4 MIAMI, OK 74354

819 ft.

UST: Relative:

Equal

Facility ID: 5806204 Tank ID: 8000 Tank Capacity:

Installed Date: 4/22/1974 0:00:00 Actual: Tank Status: Permanently Out of Use

782 ft.

Owner: JOHN RICHMOND DBA RICHMOND OIL

Owner Address: RT 1 BOX 189-1

Big Cabin, OK 74332

Product: Gasoline

Facility ID: 5806204 Tank ID: Installed Date: 4/22/1974 0:00:00 Tank Capacity: 8000

Tank Status: Permanently Out of Use

JOHN RICHMOND DBA RICHMOND OIL Owner:

Owner Address: RT 1 BOX 189-1

Big Cabin, OK 74332

Product: Gasoline

ROCOR, INC. NW

1/8-1/4

1014 N MAIN MIAMI, OK 74354

978 ft.

LUST:

Relative: Higher

Facility ID: 5804657

Alt Event ID: Facility Status: Actual:

5804657\*064-KZ CLOSED 08-92 5/8/1990 0:00:00

Report Date: 783 ft. Investor:

LANCE LOWE

U001230981

N/A

LUST

UST

Map ID MAP FINDINGS

Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

ROCOR, INC. (Continued) U001230981

UST:

Facility ID: 5804657 Tank ID: Installed Date: 4/18/1971 0:00:00 Tank Capacity: 8087

Permanently Out of Use Tank Status:

Owner: CRABTREE ENTERPRISES, INC.

ATTN: JAMES REED SEC-TREAS 207 E. CENTRAL Owner Address:

Miami. OK 74354

Product: Gasoline

Facility ID: 5804657 Tank ID: 2 Installed Date: 4/18/1971 0:00:00 Tank Capacity: 8087

Tank Status: Permanently Out of Use

CRABTREE ENTERPRISES, INC. Owner:

Owner Address: ATTN: JAMES REED SEC-TREAS 207 E. CENTRAL

Miami. OK 74354

Product: Gasoline

Facility ID: 5804657 Tank ID: 3 Installed Date: 4/17/1968 0:00:00 Tank Capacity: 2018

Tank Status: Permanently Out of Use

CRABTREÉ ENTERPRISES, INC. Owner:

ATTN: JAMES REED SEC-TREAS 207 E. CENTRAL Owner Address:

Miami, OK 74354

Product: Gasoline

C10 OTTAWA COUNTY FARM SUPPLY

SSE 530 D NE

1/8-1/4 MIAMI, OK 74354

1314 ft.

Site 1 of 2 in cluster C

Relative: Equal

UST:

Facility ID: 5813384 Tank ID: 1 Actual: Installed Date: Not reported Tank Capacity: 1000

782 ft. Permanently Out of Use Tank Status:

> Owner: CHUCK BOCKELMAN/DBA OTTAWA COUNTY FARM SUPPLY INC.

Owner Address: 530 D NE

Miami, OK 74354

Product: Diesel

C11 CITY OF MIAMI - STREET DEPT.

SSE 5TH / D STREET NE MIAMI, OK 74354 1/4-1/2

1410 ft.

Site 2 of 2 in cluster C

Relative: LUST:

Higher Facility ID:

5803777 Alt Event ID: 5803777\*064-1894 Actual: Facility Status: Closed 3/30/99 783 ft.

Report Date: 3/12/1997 0:00:00 Investor: LANCE LOWE

UST U001885347

LUST S105721578

N/A

N/A

#### MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

Distance (π.)
Elevation Site Database(s)

EDR ID Number
Database(s) EPA ID Number

12 AUTO DETAIL SHOP LUST U001885325 SSW 501 N MAIN UST N/A 1/4-1/2 MIAMI, OK 74354

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank ID:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

Tank Capacity:

4000

2

3

4000

4000

5 550

4000

1566 ft.

LUST:

Relative: Higher Actual:

792 ft.

Facility ID: 5807072

 Alt Event ID:
 5807072\*064-0763

 Facility Status:
 CLOSED 2/17/2000

 Report Date:
 10/28/1991 0:00:00

 Investor:
 LANCE LOWE

UST:

Facility ID: 5807072
Installed Date: 3/16/1981 0:00:00
Tank Status: Temporarily Out of Use
Owner: MARY BOLIN HAMILTON

Owner Address: PO BX 349

Sapulpa, OK 74066

Product: Not Listed

Facility ID: 5807072 Installed Date: 3/16/1981 0:00:00 Tank Status: Temporarily Out of

Tank Status: Temporarily Out of Use Owner: MARY BOLIN HAMILTON Owner Address: PO BX 349

Owner Address. FO DA 343

Sapulpa, OK 74066

Product: Not Listed

Facility ID: 5807072
Installed Date: 3/17/1971 0:00:00
Tank Status: Temporarily Out of Use

Owner: MARY BOLIN HAMILTON
Owner Address: PO BX 349

Sapulpa, OK 74066

Product: Gasoline

Facility ID: 5807072
Installed Date: 3/17/1971 0:00:00
Tank Status: Temporarily Out of Use
Owner: MARY BOLIN HAMILTON

Owner Address: PO BX 349

Sapulpa, OK 74066

Product: Gasoline

Facility ID: 5807072
Installed Date: 3/17/1971 0:00:00
Tank Status: Temporarily Out of Use
Owner: MARY BOLIN HAMILTON

Owner Address: PO BX 349

Sapulpa, OK 74066

Product: Used Oil

#### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MIAMI	1000286192	COLLINS CONSTRUCTION CO OF MIAMI INC	RT#1 BOX 259	74354	RCRA-SQG, FINDS
MIAMI	1000299019	MIAMI CITY OF UTILITY DEPARTMENT	14TH & STREET	74354	RCRA-SQG, FINDS
MIAMI	U001885339	SMITH'S CONVENIENCE STORE	RT 3 BOX 242 C	74354	UST
MIAMI	1006839894	CITY OF MIAMI MUNICIPAL LANDFILL	BOX 309	74354	FINDS
MIAMI	U002291684	OKLA DEPT OF TRANSPORTATION	S HWY 69	74354	LUST, UST
MIAMI	U003182044	SMILE-A-MILE GAS-N-SERVE	10651 S. HWY 69	74354	UST
MIAMI	U001234771	MIAMI MAINTENANCE FACILITY	MILE POST 314 (WILL ROGERS TPK)	74354	UST
MIAMI	A100169359	MIAMI MUNICIPAL AIRPORT	NW OF CITY 8/10 OF A MILE WEST OF 22ND AND NORTH M	74354	AST
MIAMI	1007445141	MIAMI MUNICIPAL LANDFILL	H STREET SE SOUTH OF CITY		ODI
MIAMI	U001231024	PHILLIPS #27059	I-44 WILL ROGERS TURNPIKE	74354	LUST, UST
NARCISSA	1003875936	BLUEJACKET ROAD DUMP	1/8 MILE WEST OF HIGHWAY 69 IN NARCISSA	74354	CERC-NFRAP

# **EPA Waste Codes Addendum**

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D002	A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
D003	A MATERIAL IS CONSIDERED TO BE A REACTIVE HAZARDOUS WASTE IF IT IS NORMALLY UNSTABLE, REACTS VIOLENTLY WITH WATER, GENERATES TOXIC GASES WHEN EXPOSED TO WATER OR CORROSIVE MATERIALS, OR IF IT IS CAPABLE OF DETONATION OR EXPLOSION WHEN EXPOSED TO HEAT OR A FLAME. ONE EXAMPLE OF SUCH WASTE WOULD BY WASTE GUNPOWDER.
D004	ARSENIC
D006	CADMIUM
D007	CHROMIUM
D008	LEAD
D009	MERCURY
D010	SELENIUM
F003	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

# **EPA Waste Codes Addendum**

Code	Description
LABP	LAB PACK
U044	CHLOROFORM
U044	METHANE, TRICHLORO-

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement

of the ASTM standard.

### FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/14/04 Date Made Active at EDR: 02/03/05 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 02/01/05 Elapsed ASTM days: 2 Date of Last EDR Contact: 02/01/05

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 8

Telephone 215-814-5418 Telephone: 303-312-6774

**EPA Region 4** 

Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Source: EPA Telephone: N/A

Date of Government Version: 12/14/04

Date of Data Arrival at EDR: 02/01/05

Date Made Active at EDR: 02/03/05

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 02/01/05

Elapsed ASTM days: 2

Date of Last EDR Contact: 02/01/05

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 02/15/05 Date Made Active at EDR: 04/06/05 Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/22/05 Elapsed ASTM days: 15 Date of Last EDR Contact: 03/22/05

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 03/22/05 Date Made Active at EDR: 04/06/05 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 04/01/05 Elapsed ASTM days: 5 Date of Last EDR Contact: 04/01/05

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/15/04 Date Made Active at EDR: 02/25/05 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 01/07/05

Elapsed ASTM days: 49

Date of Last EDR Contact: 03/07/05

RCRA: Resource Conservation and Recovery Act Information

Source: EPA

Telephone: 800-424-9346

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/13/05 Date Made Active at EDR: 04/25/05 Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 03/23/05 Elapsed ASTM days: 33 Date of Last EDR Contact: 03/23/05

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/04 Date Made Active at EDR: 03/24/05 Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/05 Elapsed ASTM days: 56 Date of Last EDR Contact: 04/25/05

#### FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01 Database Release Frequency: Biennially Date of Last EDR Contact: 04/15/05
Date of Next Scheduled EDR Contact: 06/13/05

CONSENT: Superfund (CERCLA) Consent Decrees Source: Department of Justice, Consent Decree Library

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/14/04 Database Release Frequency: Varies Date of Last EDR Contact: 04/26/05

Date of Next Scheduled EDR Contact: 07/25/05

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 01/10/05 Date of Last EDR Contact: 04/04/05

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 07/04/05

DELISTED NPL: National Priority List Deletions

Source: EPA Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the

NPL where no further response is appropriate.

Date of Government Version: 12/14/04 Date of Last EDR Contact: 02/01/05

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 05/02/05

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/12/05 Date of Last EDR Contact: 04/04/05

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 07/04/05

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 11/16/04 Date of Last EDR Contact: 04/19/05

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 07/18/05

MLTS: Material Licensing Tracking System Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency,

EDR contacts the Agency on a quarterly basis.

Date of Government Version: 01/12/05 Date of Last EDR Contact: 04/04/05

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 07/04/05

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes

violation information.

Date of Government Version: 11/15/04 Database Release Frequency: Semi-Annually Date of Last EDR Contact: 03/30/05

Date of Next Scheduled EDR Contact: 06/27/05

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Date of Last EDR Contact: 02/22/05 Database Release Frequency: No Update Planned

Date of Next Scheduled EDR Contact: 05/23/05

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers

of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 12/21/04 Date of Last EDR Contact: 02/23/05

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 05/09/05

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-692-8801

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 10/01/03 Date of Last EDR Contact: 02/08/05

Date of Next Scheduled EDR Contact: 05/09/05 Database Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites Source: Department of Energy Telephone: 505-845-0011

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized. In 1978, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and on Navajo and Hopi tribal lands, were targeted for cleanup by the Department of Energy.

Date of Government Version: 12/29/04 Date of Last EDR Contact: 03/22/05

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 06/20/05

ODI: Open Dump Inventory

Source: Environmental Protection Agency

Telephone: 800-424-9346

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258

Subtitle D Criteria.

Date of Government Version: 06/30/85 Date of Last EDR Contact: 05/23/95 Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: N/A

FUDS: Formerly Used Defense Sites Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers

is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/03 Database Release Frequency: Varies Date of Last EDR Contact: 04/04/05

Date of Next Scheduled EDR Contact: 07/04/05

INDIAN RESERV: Indian Reservations

Source: USGS

Telephone: 202-208-3710

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 10/01/03 Date of Last EDR Contact: 02/08/05

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 05/09/05

US ENG CONTROLS: Engineering Controls Sites List

Source: Environmental Protection Agency

Telephone: 703-603-8867

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building

foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental

media or effect human health.

Date of Government Version: 01/10/05 Date of Last EDR Contact: 04/04/05

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 07/04/05

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95 Date of Last EDR Contact: 03/07/05

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 06/06/05

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-566-0250

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and

land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/02 Date of Last EDR Contact: 03/22/05

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 06/20/05

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

site.

Date of Government Version: 12/31/02 Date of Last EDR Contact: 04/05/05

Database Release Frequency: Every 4 Years Date of Next Scheduled EDR Contact: 06/06/05

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-566-1667

Date of Government Version: 04/13/04 Date of Last EDR Contact: 03/21/05

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 06/20/05

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/03 Date of Last EDR Contact: 04/19/05

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 07/18/05

FTTS: FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 09/13/04 Date of Last EDR Contact: 03/21/05

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 06/20/05

#### STATE OF OKLAHOMA ASTM STANDARD RECORDS

SHWS: Voluntary Cleanup & Superfund Site Status Report

Source: Department of Environmental Quality

Telephone: 405-702-5100

Date of Government Version: 12/31/04
Date Made Active at EDR: 04/01/05

Database Release Frequency: Varies

Date of Data Arrival at EDR: 03/04/05

Elapsed ASTM days: 28

Date of Last EDR Contact: 03/04/05

SWF/LF: Permitted Solid Waste Disposal & Processing Facilities

Source: Department of Environmental Quality

Telephone: 405-702-5184

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/30/04 Date Made Active at EDR: 09/23/04

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 08/30/04

Elapsed ASTM days: 24

Date of Last EDR Contact: 02/28/05

LUST: Leaking Underground Storage Tank List Source: Oklahoma Corporation Commission

Telephone: 405-521-3107

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/21/03 Date Made Active at EDR: 05/21/03

Database Release Frequency: Varies

Date of Data Arrival at EDR: 04/28/03

Elapsed ASTM days: 23

Date of Last EDR Contact: 04/28/05

UST: Underground Storage Tank List, List II Version Source: Oklahoma Corporation Commission

Telephone: 405-521-3107

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/21/03 Date Made Active at EDR: 05/27/03

Database Release Frequency: Varies

VCP: Voluntary Cleanup Site Inventory

Source: Department of Environmental Quality Telephone: 405-702-5100

Date of Government Version: 03/14/05

Date Made Active at EDR: 04/01/05

Database Release Frequency: Varies

INDIAN UST: USTs on Indian Land

Source: Environmental Protection Agency, Region 6

Telephone: 214-665-7591

Date of Government Version: 01/04/05

Date Made Active at EDR: 02/28/05

Database Release Frequency: Varies

INDIAN LUST: Leaking Underground Storage Tanks on Indian Land

Source: EPA Region 6 Telephone: 214-665-6597

LUSTs on Indian land in New Mexico and Oklahmoa.

Date of Government Version: 01/04/05

Date Made Active at EDR: 02/28/05

Database Release Frequency: Varies

Date of Data Arrival at EDR: 01/21/05 Elapsed ASTM days: 38

Date of Data Arrival at EDR: 04/28/03

Date of Last EDR Contact: 04/28/05

Date of Data Arrival at EDR: 03/14/05

Date of Last EDR Contact: 03/14/05

Date of Data Arrival at EDR: 01/14/05

Date of Last EDR Contact: 02/22/05

Elapsed ASTM days: 29

Elapsed ASTM davs: 18

Elapsed ASTM days: 45

Date of Last EDR Contact: 02/22/05

Date of Last EDR Contact: 04/28/05

Date of Last EDR Contact: 04/28/05

Date of Next Scheduled EDR Contact: 07/25/05

Date of Next Scheduled EDR Contact: 07/25/05

#### STATE OF OKLAHOMA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Storage Tanks

Source: Oklahoma Corporation Commission

Telephone: 405-521-3107

Registered Aboveground Storage Tanks.

Date of Government Version: 03/21/03 Database Release Frequency: Varies

LAST: Leaking Aboveground Storage Tanks List

Source: Oklahoma Corporation Commission

Telephone: 405-522-4640

Date of Government Version: 03/21/03

Database Release Frequency: Varies

OK COMPLAINT: Oklahoma Complaint System Database

Source: Oklahoma Corporation Commission

Telephone: 405-521-2384

Environmental complaints reported to the Oklahoma Corporation Commission.

Date of Government Version: 01/07/99 Date of Last EDR Contact: 04/26/05

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 07/04/05

#### EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. @Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

TC1420679.2s Page GR-7

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#### **BROWNFIELDS DATABASES**

Brownfields: Brownfield Sites

Source: Department of Environmental Quality

Telephone: 405-702-5100

Date of Government Version: 03/16/05 Date of Last EDR Contact: 03/16/05

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 06/13/05

VCP: Voluntary Cleanup Site Inventory

Source: Department of Environmental Quality

Telephone: 405-702-5100

Date of Government Version: 03/14/05

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 06/13/05

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Pilots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 01/10/05 Database Release Frequency: Semi-Annually Date of Last EDR Contact: 03/14/05
Date of Next Scheduled EDR Contact: 06/13/05

INST CONTROL: Institutional Control Sites Source: Department of Environmental Quality

Telephone: 405-702-5100

Sites with institutional controls in place.

Date of Government Version: 03/14/05 Database Release Frequency: Varies

Database Neicase Frequency, valies

Date of Last EDR Contact: 03/14/05

Date of Last FDR Contact: 03/14/05

Date of Next Scheduled EDR Contact: 06/13/05

US INST CONTROL: Sites with Institutional Controls

Source: Environmental Protection Agency

Telephone: 703-603-8867

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/10/05 Database Release Frequency: Varies Date of Last EDR Contact: 04/04/05
Date of Next Scheduled EDR Contact: 07/04/05

### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its

fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers Source: Department of Human Services

Telephone: 405-521-3561

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

### STREET AND ADDRESS INFORMATION

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# GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

#### TARGET PROPERTY ADDRESS

EAGLEPICHER TECHNOLOGIES, LLC MIAMI 200 B.J. TUNNEL BLVD. MIAMI, OK 74354

#### TARGET PROPERTY COORDINATES

Latitude (North): 36.885399 - 36° 53' 7.4" Longitude (West): 94.874901 - 94° 52' 29.6"

Universal Tranverse Mercator: Zone 15 UTM X (Meters): 332916.3 UTM Y (Meters): 4083597.8

Elevation: 782 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

### GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

#### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:

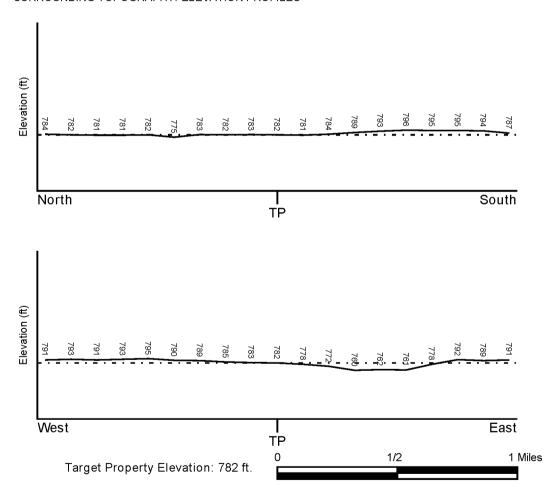
36094-H7 PICHER, OK KS

General Topographic Gradient: General East

Source:

USGS 7.5 min quad index

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

FEMA Flood
Target Property County Electronic Data

OTTAWA, OK YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 4001570003D

Additional Panels in search area: 4001540019B

4001570001C 4001570004C 4001570002C

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property PICHER

NWI Quad at Target Property Data Coverage Not Available

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

#### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT** 

Soil Surface Texture:

GEOLOGIC AGE IDENTIFICATION

Era: Paleozoic Category: Stratified Sequence

System: Mississippian
Series: Chesterian Series

Code: M3 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: TALOKA

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Somewhat poorly. Soils commonly have a layer with low hydraulic

conductivity, wet state high in profile, etc. Depth to water table is

1 to 3 feet.

silt loam

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

	Soil Layer Information						
	Boui	ndary		Classif	ication		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	28 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 2.00 Min: 0.60	Max: 6.00 Min: 5.10
2	28 inches	78 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.06 Min: 0.00	Max: 8.40 Min: 5.10

#### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam

Surficial Soil Types: loam

Shallow Soil Types: loam

Deeper Soil Types: clay

silt loam

weathered bedrock silty clay loam

#### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

#### WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
12	USGS2621499	1/2 - 1 Mile NW
14	USGS2621498	1/2 - 1 Mile NE
C17	USGS2621642	1/2 - 1 Mile South
18	USGS2621497	1/2 - 1 Mile WNW
19	USGS2621641	1/2 - 1 Mile SSE
21	USGS2621644	1/2 - 1 Mile SW
23	USGS2621502	1/2 - 1 Mile NW

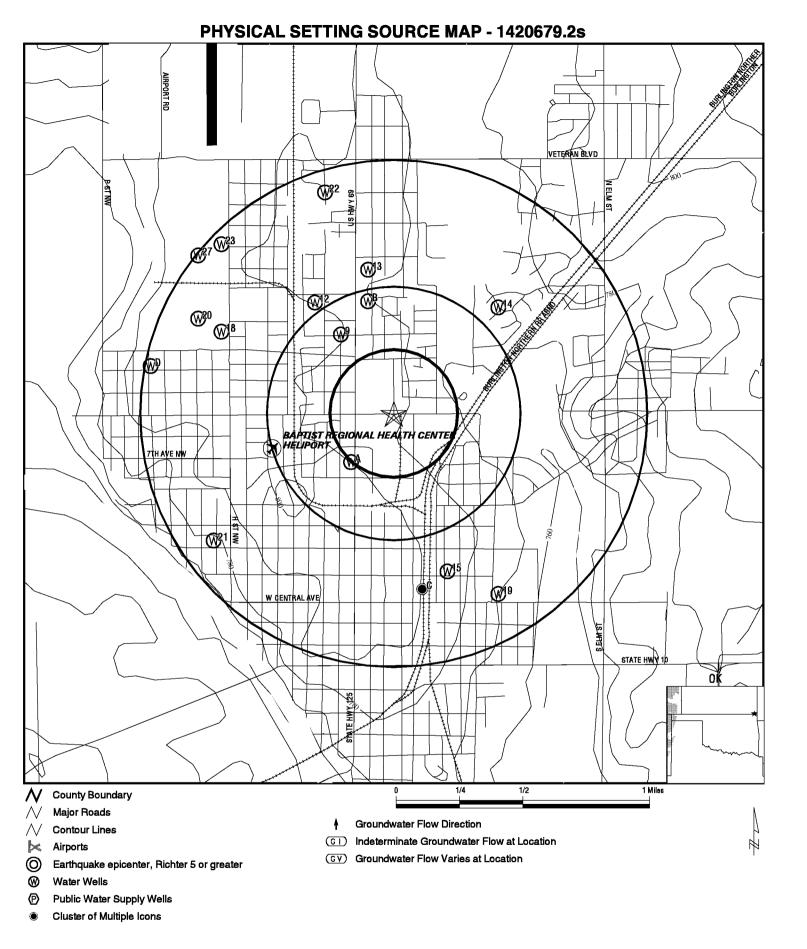
### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
C16	OK2005813	1/2 - 1 Mile SSE

Note: PWS System location is not always the same as well location.

### STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	OK00062887	1/8 - 1/4 Mile SW
A2	OK00062886	1/4 - 1/2 Mile SW
A3	OK00062885	1/4 - 1/2 Mile SW
A4	OK00062888	1/4 - 1/2 Mile SW
A5	OK00062889	1/4 - 1/2 Mile SW
A6	OK00062890	1/4 - 1/2 Mile SW
A7	OK00062891	1/4 - 1/2 Mile SW
A8	OK00062892	1/4 - 1/2 Mile SW
9	OK00062860	1/4 - 1/2 Mile NW
B10	OK00062861	1/4 - 1/2 Mile NNW
B11	OK00062862	1/4 - 1/2 Mile NNW
13	OK00062981	1/2 - 1 Mile North
15	OK00062808	1/2 - 1 Mile SSE
20	OK00062803	1/2 - 1 Mile WNW
22	OK00062805	1/2 - 1 Mile NNW
D24	OK00062973	1/2 - 1 Mile West
D25	OK00062974	1/2 - 1 Mile West
D26	OK00062975	1/2 - 1 Mile West
27	OK00062804	1/2 - 1 Mile NW



TARGET PROPERTY: EaglePicher Technologies, LLC Miami
ADDRESS: 200 B.J. Tunnel Blvd. CONTACT: John Carrow
CITY/STATE/ZIP: Miami OK 74354 INQUIRY #: 1420679.2s
LAT/LONG: 36.8854 / 94.8749 DATE: May 12, 2005 2:19 pm

# GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance

 Elevation
 Database
 EDR ID Number

 A1
 SW
 OK WELLS
 OK00062887

1/8 - 1/4 Mile Higher

Well id: 49397

Well name: Ottawa n/a County: Ms. Mary Hamilton c/o Prof. En SENENE Owner name: Qtrs: Sec twp rae: 25-28N-22EI Latitude: 36.882733203 Longitude: -94.877954704 01/20/00 Date const: DPC-0269 Usage: Water Quality Dpc no: Well type: Monitoring Well Td: 19

Static wi: n/a Est yld: n/a

Surf elev: n/a

A2 SW OK WELLS OK00062886

1/4 - 1/2 Mile Higher

Well id: 49396

Well name: County: Ottawa Ms. Mary Hamilton c/o Proff. E SENENE Owner name: Qtrs: Sec twp rge: 25-28N-22EI Latitude: 36.882696997 -94.877946078 Longitude: Date const: 01/20/00 DPC-0269 Usage: Dpc no: Water Quality

Well type: Monitoring Well Td: 10
Static wl: n/a Est yld: n/a

Surf elev: n/a

A3 SW OK WELLS OK00062885

1/4 - 1/2 Mile Higher

Well id: 49395

Well name: n/a County: Ottawa Ms. Mary Hamilton c/o Proff. E Qtrs: SENENE Owner name: 25-28N-22EI Latitude: 36.882671627 Sec twp rge: Longitude: -94.87793729 Date const: 01/20/00 DPC-0269 Usage: Water Quality Dpc no:

 Well type:
 Monitoring Well
 Td:
 20

 Static wl:
 n/a
 Est yld:
 n/a

Surf elev: n/a

A4 SW OK WELLS OK00062888

1/4 - 1/2 Mile Higher

# GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS

Well id: 49398

Well name: n/a County: Ottawa Mr. Mary Hamilton c/o Prof. En SENENE Owner name: Qtrs: Sec twp rge: 25-28N-22EI Latitude: 36 882635507 -94.877937832 Longitude: Date const: 01/20/00 DPC-0269 Usage: Dpc no: Water Quality

Well type:Monitoring WellTd:18Static wl:n/aEst yld:n/a

Surf elev: n/a

A5 SW OK WELLS OK00062889

1/4 - 1/2 Mile Higher

Well id: 49399

Well name: County: Ottawa Ms. Mary Hamilton c/o Prof. En SENENE Qtrs: Owner name: 25-28N-22EI Sec twp rge: 36.882588551 Latitude: Longitude: -94.877938535 Date const: 01/20/00 DPC-0269 Water Quality Dpc no: Usage:

Well type:Monitoring WellTd:20Static wl:n/aEst yld:n/a

Surf elev: n/a

A6 SW OK WELLS OK00062890

SW 1/4 - 1/2 Mile Higher

Well id: 49400

Well name: n/a County: Ottawa Owner name: Ms. Mary Hamilton c/o Prof. En Qtrs: SENENE 25-28N-22EI 36.88255974 Sec twp rge: Latitude: Longitude: -94.877948135 Date const: 01/19/00 DPC-0269 Dpc no: Usage: Water Quality

 Well type:
 Monitoring Well
 Td:
 20

 Static wl:
 n/a
 Est yld:
 n/a

Surf elev: n/a

A7 SW OK WELLS OK00062891

1/4 - 1/2 Mile Higher

Well id: 49401

Well name: County: Ottawa Ms. Mary Hamilton c/o Prof. En SENENE Owner name: Qtrs: Sec twp rge: 25-28N-22EI Latitude: 36.882523619 Longitude: -94.877948676 Date const: 01/19/00 DPC-0269 Dpc no: Usage: Water Quality

Well type: Monitoring Well Td: 19
Static wl: n/a Est yld: n/a

Surf elev: n/a

# GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Distance Elevation			Database	EDR ID Number
A8 SW 1/4 - 1/2 Mile Higher			OK WELLS	OK00062892
Well id: Well name: Owner name: Sec twp rge: Longitude: Dpc no: Well type: Static wl: Surf elev:	49402 n/a Mr. Mary Hamilton c/o Prof. En 25-28N-22EI -94.877949163 DPC-0269 Monitoring Well n/a n/a	County: Qtrs: Latitude: Date const: Usage: Td: Est yld:	Ottawa SENENE 36.882491111 01/19/00 Water Quality 18 n/a	
9 NW 1/4 - 1/2 Mile Higher			OK WELLS	OK00062860
Well id: Well name: Owner name: Sec twp rge: Longitude: Dpc no: Well type: Static wl: Surf elev:	45929 n/a Quik Trip 24-28N-22EI -94.878666 DPC-0265 Monitoring Well n/a n/a	County: Qtrs: Latitude: Date const: Usage: Td: Est yld:	Ottawa SENESE 36.889912 09/28/99 Water Quality 14 n/a	
B10 NNW 1/4 - 1/2 Mile Lower			OK WELLS	OK00062861
Well id: Well name: Owner name: Sec twp rge: Longitude: Dpc no:	48527 n/a Coastal Mart 19-28N-23EI -94.876728 DPC-0452	County: Qtrs: Latitude: Date const: Usage:	Ottawa NWNWSW 36.891809 12/02/99 Water Quality	

Td:

Est yld:

B11 NNW 1/4 - 1/2 Mile Lower

Well type: Static wl:

Surf elev:

Monitoring Well

n/a

OK WELLS OK00062862

19

n/a

48528 Well id:

Well name: n/a County: Ottawa Coastal Mart NWNWSW Owner name: Qtrs: 19-28N-23FI Latitude: 36 891809 Sec twp rge: Longitude: -94.876728 Date const: 12/03/99 Dpc no: DPC-0452 Usage: Water Quality

Monitoring Well Well type: Td: 17.5 Static wl: n/a Est yld: n/a

Surf elev: n/a

12 NW 1/2 - 1 Mile FED USGS USGS2621499

Higher

USGS Agency cd: Site no: 365330094524901

Site name: 28N-22E-24 DAB 1

365330 Latitude:

Longitude: 0945249 Dec lat: 36.89173667 Dec Ion: -94.8805106 Coor meth: NAD27 Latlong datum: Coor accr: Т District: Dec latlong datum: NAD83 40 40 County: 115 State:

NWNESES24 T28N R22E I Country: US Land net:

MIAMI NW 24000 Location map: Map scale: Not Reported Not Reported Altitude: Altitude method: Altitude accuracy: Not Reported Altitude datum: Not Reported

Hydrologic: Kaw Lake. Kansas, Oklahoma. Area = 926 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: Not Reported

Date inventoried: Not Reported Mean greenwich time offset: CST

Local standard time flag: Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: **ROUBIDOUX FORMATION** 

1046 Well depth: Hole depth: Not Reported Source of depth data: Not Reported Project number: Not Reported Real time data flag: Not Reported Daily flow data begin date: Not Reported Not Reported Daily flow data end date: Daily flow data count: Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date:Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

13

North 1/2 - 1 Mile Lower

OK00062981 **OK WELLS** 

Well id: 72889

Well name: n/a County: Ottawa Speed-A-Way **SWSWNW** Owner name: Qtrs: 19-28N-23EI Latitude: 36 893616 Sec twp rge: Longitude: -94.876728 Date const: 07/20/02 Dpc no: DPC-0197 Usage: Water Quality

Monitoring Well Well type: Td: 10 Static wl: n/a Est yld: n/a

Surf elev: n/a

ΝĖ FED USGS USGS2621498

1/2 - 1 Mile Lower

> USGS Agency cd: Site no: 365329094531001

Site name: 28N-23E-30 DBC 3

365329 Latitude:

Longitude: 0945202 Dec lat: 36.8914586 Dec Ion: -94.8674547 Coor meth: NAD27 Latlong datum: Coor accr: Т District: Dec latlong datum: NAD83 40 40 County: 115 State:

SWNWSES30 T28N R23E I Country: US Land net:

**PICHER** 24000 Location map: Map scale: 765 Altitude: Altitude method: Μ Altitude accuracy: 5 Altitude datum: NGVD29 Hydrologic: Lake O' the Cherokees. Arkansas, Kansas, Missouri, Oklahoma. Area = 911 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: 19070000 Date inventoried: Not Reported Mean greenwich time offset: CST

Local standard time flag: Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: **ROUBIDOUX FORMATION** 

1680 Well depth: Hole depth: Not Reported Source of depth data: Not Reported Project number: Not Reported Real time data flag: Not Reported Daily flow data begin date: Not Reported Daily flow data end date: Not Reported Daily flow data count: Not Reported Peak flow data begin date: Not Reported Peak flow data end date: Not Reported Peak flow data count: Not Reported Water quality data begin date: Not Reported Water quality data end date: Not Reported Water quality data count: Not Reported Ground water data begin date: Not Reported Ground water data end date: Not Reported

Ground water data count: Not Reported

Ground-water levels, Number of Measurements: 0

15 SSE OK00062808 **OK WELLS** 

1/2 - 1 Mile Higher

41487 Well id:

Well name: n/a County: Ottawa City of Miami **NESW** Owner name: Qtrs: 30-28N-23FI Latitude: 36 876358 Sec twp rge: Longitude: -94.871077 Date const: 05/22/52

Dpc no: n/a Usage: Public Water Supply

. Well type: Groundwater Well Td: 1233 Static wl: n/a Est yld: n/a

Surf elev: n/a

C16 SSE 1/2 - 1 Mile FRDS PWS OK2005813

Higher

OK2005813 PWS ID: PWS Status: Not Reported

Date Initiated: Not Reported Date Deactivated: Not Reported PWS Name: MIAMI

PO BOX 1288 MIAMI, OK 74354

Addressee / Facility: Operator

**BOB COLLINS** 

36 51 46.0000 Facility Latitude: Facility Longitude: 94 52 25.0000 Facility Latitude: 36 52 9.0000 Facility Longitude: 94 52 24.0000 Facility Latitude: 36 52 14.0000 Facility Longitude: 94 50 7.0000 36 52 14.0000 Facility Latitude: Facility Longitude: 94 51 8.0000 Facility Latitude: 36 52 32.0000 Facility Longitude: 94 52 20.0000 Facility Latitude: 36 53 8.0000 Facility Longitude: 94 50 30.0000 Facility Latitude: 36 53 43.0000 Facility Longitude: 94 51 35.0000

City Served: Not Reported

Treatment Class: Treated Population: 14300

PWS currently has or had major violation(s) or enforcement: No

C17 FED USGS USGS2621642

South 1/2 - 1 Mile Higher

USGS Agency cd: Site no: 365229094522101

Site name: 28N-23E-30 CAC 1

Latitude: 365230

Longitude: 0945223 Dec lat: 36.87507 Dec Ion: -94.8732886 Coor meth: NAD27 S Coor accr: Latlong datum: Dec latlong datum: NAD83 District: 40 State: 40 County: 115

SWNESWS30 T28N R23E I Country: US Land net:

Location map: **PICHER** Map scale: 24000 Altitude: 790 Altitude method: NGVD29 Altitude accuracy: 10 Altitude datum: Hydrologic: Lake O' the Cherokees. Arkansas, Kansas, Missouri, Oklahoma. Area = 911 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: Not Reported

19800101 Date inventoried: Mean greenwich time offset: CST

Local standard time flag: Y Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Confined single aquifer Aquifer: ROUBIDOUX FORMATION

Well depth:1233Hole depth:Not ReportedSource of depth data:Not ReportedProject number:464009900

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0
Peak flow data begin date: 0000-00-00
Peak flow data count: 0
Water quality data begin date: 1959-03-30

Peak flow data count: 0 Water quality data begin date: 1959-03-30 Water quality data end date:1993-01-27 Water quality data count: 4

Ground water data begin date: 0000-00-00 Ground water data end date: 0000-00-00

Ground water data count: 0

Ground-water levels, Number of Measurements: 0

WNW FED USGS USGS2621497

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 365324094531301

Site name: 28N-22E-24 CAD 1

Latitude: 365324

0945313 36.89007 Longitude: Dec lat: Dec Ion: -94.8871778 Coor meth: NAD27 Coor accr. т Latlong datum: Dec latlong datum: NAD83 District: 40 40 County: 115

Country: US Land net: SENESWS24 T28N R22E I

Location map:MIAMI NWMap scale:24000Altitude:798Altitude method:MAltitude accuracy:5Altitude datum:NGVD29

Hydrologic: Kaw Lake. Kansas, Oklahoma. Area = 926 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: 1944
Date inventoried: Not Reported Mean greenwich time offset: CST

Local standard time flag: Y Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: ROUBIDOUX FORMATION

Well depth:1055Hole depth:Not ReportedSource of depth data:Not ReportedProject number:CMRASA0254Real time data flag:0Daily flow data begin date:0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00 Water quality data begin date: 1981-07-16

Water quality data end date:1981-07-16 Water quality data count: 1

Ground water data begin date: 1944-02-00 Ground water data end date: 1944-08-01

Ground water data count: 2

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to

Date Surface Sealevel

Date Surface Sealevel

1044 02 240 00

1944-08-01 268.00 1944-02 249.00

19 SSE FED USGS USGS2621641

1/2 - 1 Mile Lower

Agency cd: USGS Site no: 365229094520201

Site name: 28N-23E-30 DBC 1

Latitude: 365230 Longitude: 0945202 Dec lat: 36.87507 Dec Ion: -94.867455 Coor meth: Coor accr: S Latlong datum: NAD27 Dec latlong datum: NAD83 District: 40 State: 40 County:

Country: US Land net: SWNWSES30 T28N R23E I

Location map:PICHERMap scale:24000Altitude:770Altitude method:MAltitude accuracy:10Altitude datum:NGVD29Hydrologic:Lake O' the Cherokees. Arkansas, Kansas, Missouri, Oklahoma. Area = 911 sq.mi.

Topographic: Flat surface
Site type: Ground-water other than Spring Date construction:

Site type: Ground-water other than Spring Date construction: 1907
Date inventoried: 19800501 Date construction: CST

Local standard time flag: Y Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Confined single aquifer Aquifer: ROUBIDOUX FORMATION

Well depth:1490Hole depth:1680Source of depth data:Not ReportedProject number:464005800Real time data flag:0Daily flow data begin date:0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00 Peak flow data count: 0 Peak flow data end date: 0000-00-00 Water quality data begin date: 1982-10-08

Water quality data end date:1982-12-08 Water quality data count: 3

Ground water data begin date: 1907-00-00 Ground water data end date: 2004-04-13

Ground water data count: 272

Ground-water levels, Number of Measurements: 272

	Feet below	Feet to		Feet below	Feet to
Date	Surface	Sealevel	Date	Surface	
2004-04-13	392.0		1997-08-28	391.65	
1997-07-09	379.41		1997-04-18	365.93	
1997-02-05	373.40		1996-12-04	371.06	
1996-10-17	372.43		1996-08-16	374.59	
1996-07-02	364.99		1996-04-26	353.30	
1996-02-16	352.68		1996-01-12	354.86	
1995-10-03	357.08		1995-08-17	355.30	
1995-06-29	345.50		1995-04-05	336.80	
1995-02-09	338.34		1994-12-08	345.58	
1994-10-06	351.02		1994-08-11	350.02	
1994-04-20	329.80		1994-04-07	329.66	
1994-02-16	327.80		1993-12-17	331.05	
1993-10-12	339.2		1993-08-09	339.73	
1993-07-02	334.33		1993-06-08	334.71	
1993-04-06	345.27		1993-02-10	328.88	
1992-12-09	332.25		1992-10-29	338.25	
1992-10-06	337.64		1992-07-28	341.19	
1992-05-27	337.59		1992-03-31	329.30	
1992-01-30	341.65		1991-11-21	350.69	
1991-09-26	351.94		1991-08-06	356.34	
1991-06-27	343.20		1991-04-04	337	
1991-02-06	342.04		1990-12-03	342.07	
1990-07-26	357.00		1990-06-14	341.29	
1990-05-11	335.34		1990-03-30	334.14	
1990-02-08	337.91		1990-02-07	337.48	
1990-01-11	341.36		1989-11-14	338.49	

Ground-wate	er levels, conti			E	<b></b>
Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1989-11-13	339.33		 1989-10-3	 340.55	
1989-10-25	343.74		1989-07-27	346.25	
1989-05-10	337.60		1989-01-04	346.10	
1988-11-16	353.70		1988-08-22	366.00	
1988-07-12	361.00		1988-03-16	350.70	
1987-12-17	361.10		1987-10-28	368.21	
1987-06-30	380.38		1987-05-06	367.59	
1987-03-23	370.25		1987-01-27		
1986-12-16	389.18		1986-11-05		
1986-10-09	407.93		1986-06-24		
1986-06-18	406.94		1986-05-07		
1986-02-26	417.98		1985-06-20		
1981-09-07	434.97		1980-06-04		
1980-04-03	438.60		1980-03-05		
1980-02-27	441.71		1980-01-2		
1979-12-10	444.60		1979-10-30		
1979-09-27	454.6 452.76		1979-08-17		
1979-07-23	452.76		1979-06-1 1979-05-10		
1979-05-23 1979-04-02	441.0		1979-03-05		
	449.95 456.0		1978-12-19		
1979-02-14 1978-11-21	456.9 452.20		1978-12-13		
1978-09-14	455.60		1978-08-24		
1978-03-14	455.20		1976-06-07		
1978-05-12	453.85		1978-04-18		
1978-03-12	451.20		1978-03-10		
1978-02-23	450.80		1978-01-2		
1977-12-30	450.00		1977-11-28		
1977-10-21	454.82		1977-10-0		
1977-09-15	458.03		1977-09-0		
1977-08-16	455.38		1977-07-27		
1977-06-09	447.40		1977-05-25		
1977-04-29	443.15		1977-04-0	440.53	
1977-03-22	446.70		1977-03-15	442.95	
1977-02-17	439.12		1977-01-27	441.34	
1977-01-07	438.28		1976-12-15	439.10	
1976-12-02	436.32		1976-11-16	433.88	
1976-11-02	436.21		1976-10-08	3 438.65	
1976-09-16	432.85		1976-09-07	429.43	
1976-08-12	436.37		1976-07-15	433.38	
1976-07-01	433.52		1976-06-07		
1976-05-18	431.52		1976-05-05		
1976-04-30	437.65		1976-04-05		
1976-03-17	442.00		1976-02-17		
1976-02-02	442.15		1976-01-15		
1975-12-30	440.42		1975-12-17 1975-11-17		
1975-12-02	447.57		1975-11-17		
1975-10-31	446.35 454.50		1975-10-16 1975-09-16		
1975-09-30 1975-08-29	454.50 459.45		1975-09-16 1975-08-18		
1975-08-29	459.45 452.35		1975-08-18		
1975-07-30	432.33 445.55		1975-06-16		
1975-05-30	436.45		1975-05-0 <sup>-</sup>		
1975-03-30	442.8		1975-02-28		
1975-01-29	443.5		1974-12-20		
			107 + 12 20		

Ground-wate	er levels, conti				
Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1974-11-08	 448.10		 1974-10-04	450.0	
1974-09-04	461.1		1974-07-23	475.00	
1974-05-20	459.35		1974-02-12	456.00	
1973-11-07	455.65		1973-09-07	447.1	
1973-07-19	457.9		1973-06-23	446.8	
1972-12-21	440.9		1972-11-16	446.15	
1972-10-05	448.91		1972-09-18		
1972-08-08	464.8		1972-07-07		
1972-06-05	455.73		1972-05-01	437.4	
1972-04-04	437.5		1972-02-29		
1970-10-01	421.5		1969-08-08		
1968-12-18	387.0		1968-03-06		
1967-07-06	365.5		1967-05-20		
1967-04-06	377.		1967-03-06		
1967-01-23	376.		1966-10-14		
1966-06-22	367.5		1966-03-18		
1966-02-02	357.6 364		1965-12-22		
1965-10-04	364.		1965-08-26 1962-11-21		
1962-12-19 1962-10-23	372.0 371.0		1962-11-21	369.5 374.5	
1962-10-23	382.0		1962-09-19		
1962-06-21	366.0		1962-07-16		
1962-04-18	352.0		1962-03-22		
1962-04-16	351.8		1962-01-27		
1961-12-18	351.0		1961-11-22		
1961-09-20	355.5		1961-08-22		
1961-07-19	360.5		1961-06-06		
1961-04-18	355.0		1961-02-23		
1961-01-11	354.5		1960-09-21	362.5	
1960-07-19	350.		1960-06-22		
1960-05-22	343.		1960-04-20	344.5	
1960-03-19	346.		1960-02-19	348.5	
1960-01-19	350.5		1959-12-21	354.0	
1959-11-25	358.0		1959-10-20	360.5	
1959-09-19	359.0		1959-08-18	358.0	
1959-08-05	355.5		1959-07-22	346.5	
1959-06-22	341.5		1959-06-01	333.	
1959-05-02	335.		1959-03-26		
1959-02-28	337.		1959-02-06		
1959-01-07	338.		1958-11-30		
1958-10-21	343.5		1958-09-26	343.	
1958-08-20	348.		1958-08-02		
1958-07-19	346.		1958-06-20	355.	
1958-05-21	354.		1958-04-20	348.0	
1958-03-21	350.0		1958-03-07	350.0	
1958-02-03 1957-12-01	351.0		1958-01-04 1957-11-06		
1957-12-01	362. 370.		1957-11-06 1957-08-21	364. 374.	
1957-09-25	370. 370.4		1957-06-21	363.	
1957-07-29	362.		1957-06-23	355.	
1957-05-31	355.2		1957-00-25	354.8	
1957-03-26	358.8		1957-02-21	359.5	
1957-01-30	356.6		1956-10-22	372.	
1956-10-02	385.5		1944	150.	
1937	100.		1907	-28.	

Map ID
Direction
Distance
T1

 Elevation
 Database
 EDR ID Number

 20
 WNW
 OK WELLS
 OK00062803

1/2 - 1 Mile Higher

Well id: 41472

Well name: Ottawa n/a County: City of Miami NESW Owner name: Qtrs: Sec twp rae: 24-28N-22EI Latitude: 36.890816 -94.888834 02/14/44 Longitude: Date const: n/a Usage: Industrial Dpc no: 490 Well type: Groundwater Well Td:

Well type:Groundwater WellI d:490Static wl:n/aEst yld:n/aSurf elev:n/a

....

21 SW FED USGS USGS2621644

1/2 - 1 Mile Lower

Agency cd: USGS Site no: 365241094531501

Site name: 28N-23E-30 DBC 2

Latitude: 365241

0945315 36.8781258 Longitude: Dec lat: Dec Ion: -94.8877336 Coor meth: NAD27 Coor accr: Latlong datum: NAD83 Dec latlong datum: District: 40 State: 40 County: 115

Country: US Land net: SWNWSES30 T28N R23E I

Location map:MIAMI NWMap scale:24000Altitude:Not ReportedAltitude method:Not ReportedAltitude accuracy:Not ReportedAltitude datum:Not ReportedHydrologic:Lake O' the Cherokees. Arkansas, Kansas, Missouri, Oklahoma. Area = 911 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: Not Reported

Date inventoried: Not Reported Mean greenwich time offset: CST

Local standard time flag: Y Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Not Reported

Aquifer: ROUBIDOUX FORMATION

Well depth:Not ReportedHole depth:Not ReportedSource of depth data:Not ReportedProject number:464000200Real time data flag:0Daily flow data begin date:0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0

Peak flow data begin date: 0000-00-00
Peak flow data end date: 0000-00-00
Peak flow data count: 0
Water quality data begin date: 0000-00-00
Water quality data end date: 0000-00-00
Water quality data count: 0

Ground water data begin date: 1981-03-12 Ground water data end date: 1983-03-16

Ground water data count: 3

Ground-water levels, Number of Measurements: 3

1983-03-16 456.00 1982-03-30 442.20

1981-03-12 434.23

Map ID Direction Distance

Elevation Database EDR ID Number

22
NNW OK WELLS OK00062805

1/2 - 1 Mile

Higher

Well id: 41475

Well name: Ottawa n/a County: City of Miami NENE Owner name: Qtrs: Sec twp rae: 24-28N-22EI Latitude: 36.898044 -94.879796 07/14/44 Longitude: Date const: n/a Industrial Dpc no: Usage: Groundwater Well Well type: Td: 1235

Well type:Groundwater WellTd:1235Static wl:n/aEst yld:n/a

Surf elev: n/a

NW FED USGS USGS2621502

1/2 - 1 Mile Higher

Agency cd: USGS Site no: 365342094531301

Site name: 28N-22E-24 BDA 1

Latitude: 365342

0945313 36.89507 Longitude: Dec lat: Dec Ion: -94.8871775 Coor meth: NAD27 Coor accr: Latlong datum: NAD83 Dec latlong datum: District: 40 State: 40 County: 115

Country: US Land net: NESENWS24 T28N R22E I

Location map:MIAMI NWMap scale:24000Altitude:792Altitude method:MAltitude accuracy:5Altitude datum:NGVD29

Hydrologic: Kaw Lake. Kansas, Oklahoma. Area = 926 sq.mi.

Topographic: Not Reported

Site type: Ground-water other than Spring Date construction: 1944
Date inventoried: Not Reported Mean greenwich time offset: CST

Local standard time flag: Y Type of ground water site: Single well, other than collector or Ranney type

Aquifer Type: Confined single aquifer Aquifer: ROUBIDOUX FORMATION

Well depth: 1465 Hole depth: Not Reported Source of depth data: Not Reported Project number: Not Reported

Real time data flag: 0 Daily flow data begin date: 0000-00-00

Daily flow data end date: 0000-00-00 Daily flow data count: 0
Peak flow data begin date: 0000-00-00 Peak flow data end date: 0000-00-00

Peak flow data begin date: 0000-00-00

Peak flow data count: 0

Water quality data begin date: 1981-07-16

Water quality data count: 1

Ground water data begin date: 0000-00-00 Ground water data end date: 0000-00-00

Ground water data count: 0

Ground-water levels, Number of Measurements: 0

ordana water levele, rumber of medealemente. e

D24 West 1/2 - 1 Mile Higher

OK WELLS OK00062973

70732 Well id:

Well name: n/a County: Ottawa Michelin North America, Inc. **NESWSW** Owner name: Qtrs: Sec twp rge: 24-28N-22EI Latitude: 36 888105 Longitude: -94.892223 Date const: 05/30/02 DPC-0463 Dpc no: Usage: Site Assessment

Well type: Monitoring Well Td: 23 Static wl: n/a Est yld: n/a

Surf elev: n/a

D25 West 1/2 - 1 Mile **OK WELLS** OK00062974

Higher

70733 Well id:

Well name: n/a County: Ottawa NESWSW Michelin North American, Inc. Qtrs: Owner name: Sec twp rge: 24-28N-22EI 36.888105 Latitude: Longitude: -94.892223 Date const: 05/31/02 DPC-0463 Water Quality Dpc no: Usage:

Well type: Monitoring Well Td: 25 Static wl: Est yld: n/a n/a

Surf elev: n/a

D26 **OK WELLS** OK00062975

West 1/2 - 1 Mile Higher

Well id: 70734 Well name: n/a County:

Ottawa Owner name: Michelin North American Qtrs: **NESWSW** 24-28N-22EI 36.888105 Sec twp rge: Latitude: Longitude: -94.892223 Date const: 05/29/02 DPC-0463 Dpc no: Usage: Water Quality

Monitoring Well Well type: Td: 26.5 Static wl: n/a Est yld: n/a

Surf elev: n/a

27 NW **OK WELLS** OK00062804

1/2 - 1 Mile Higher

> 41474 Well id:

Well name: n/a County: Ottawa City of Miami SENW Owner name: Qtrs: Sec twp rge: 24-28N-22EI 36.89443 Latitude: Longitude: -94.888834 Date const: 03/04/44 Dpc no: n/a Usage: Industrial Well type: Groundwater Well 1465 Td:

Static wl: n/a Est yld: n/a

Surf elev: n/a

## AREA RADON INFORMATION

State Database: OK Radon

Radon Test Results

Zip	Total Sites	# Sites>4 pCi/L	Max pCi/L	Average pCi/L
_				
74354	23	0	1.8	0.973

## Federal EPA Radon Zone for OTTAWA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 74354

Number of sites tested: 13

Area Average Activity % <4 pCi/L % 4-20 pCi/L % >20 pCi/L Living Area - 1st Floor 0.646 pCi/L 100% 0% Living Area - 2nd Floor Not Reported Not Reported Not Reported Not Reported 0.400 pCi/L Basement 100% 0% 0%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS

1:24,000- and 1:25,000-scale topographic quadrangle maps.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

### HYDROGEOLOGIC INFORMATION

AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

### GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

#### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STATE RECORDS

Public Water Supply Well Data

Source: Oklahoma Water Resources Board

Telephone: 405-530-8800

#### RADON

State Database: OK Radon

Source: Department of Environmental Quality

Telephone: 405-702-5100 Radon Information

# Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

# EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# APPENDIX F EDR HISTORICAL TOPOGRAPHIC MAPS

Project No. 115844.03 Shaw Environmental Inc.



# The EDR-Historical Topographic Map Report

EaglePicher Technologies, LLC 200 B.J. Tunnel Blvd. Miami, OK 74354

May 16, 2005

Inquiry Number: 1420679-4

# The Standard In Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

**Nationwide Customer Service** 

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

Quadrangle Relation Chart

Inquiry # 14020679. 4

Adjoining.

Target:

Miami NW. OK.

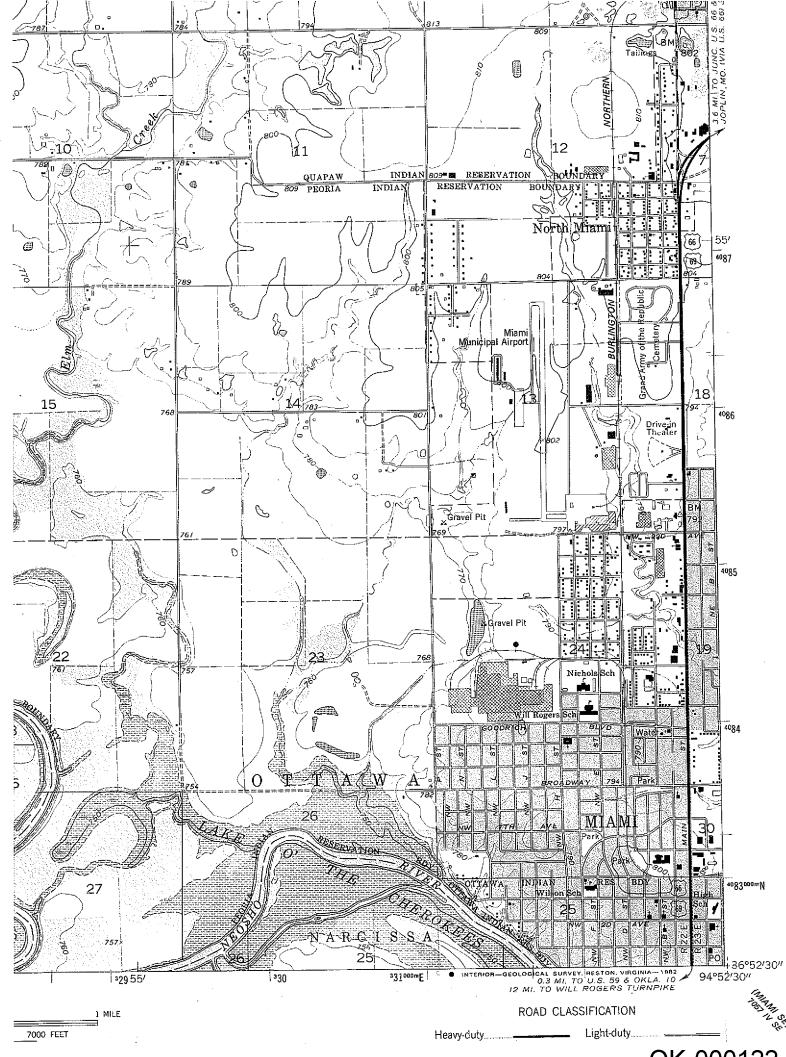
Picher, OK.

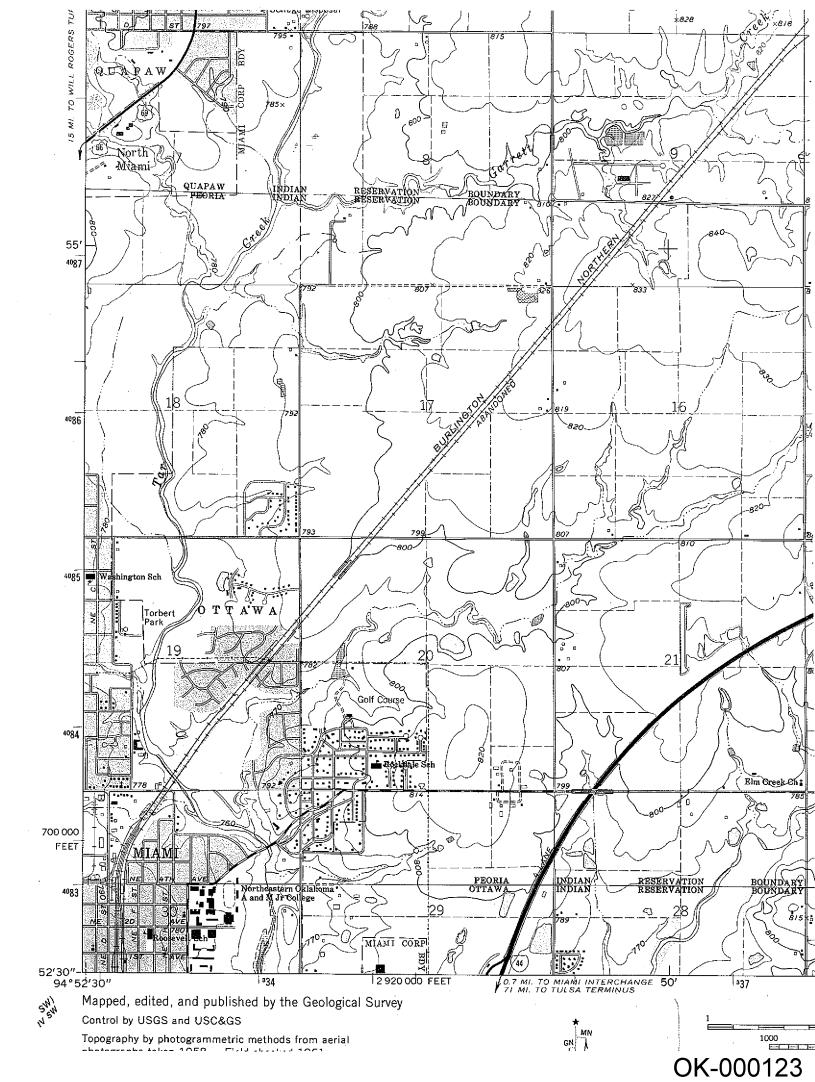
Adjorning

Adjoining:

Mami SW, OK

Miami SE, OK





# UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY 94°52′30″ 36°52′30″ -JOPLIN MO. (VIA U.S. 66) 26 MI. 16 MI. TO MISSOURI TERMINUS 334000mE 50' 44) , **III** Trailer Park 4082000 п 10) žχ HOLLOW 24 / WELCH 14 / MAMI 32 4081 SewageO Disposal T. 28 N. T. 27 N. NEOSHO OTTAWA 4080 Gravel Pit 4 4079 × Gravel Pyt 10 4078 50 0 4077

16

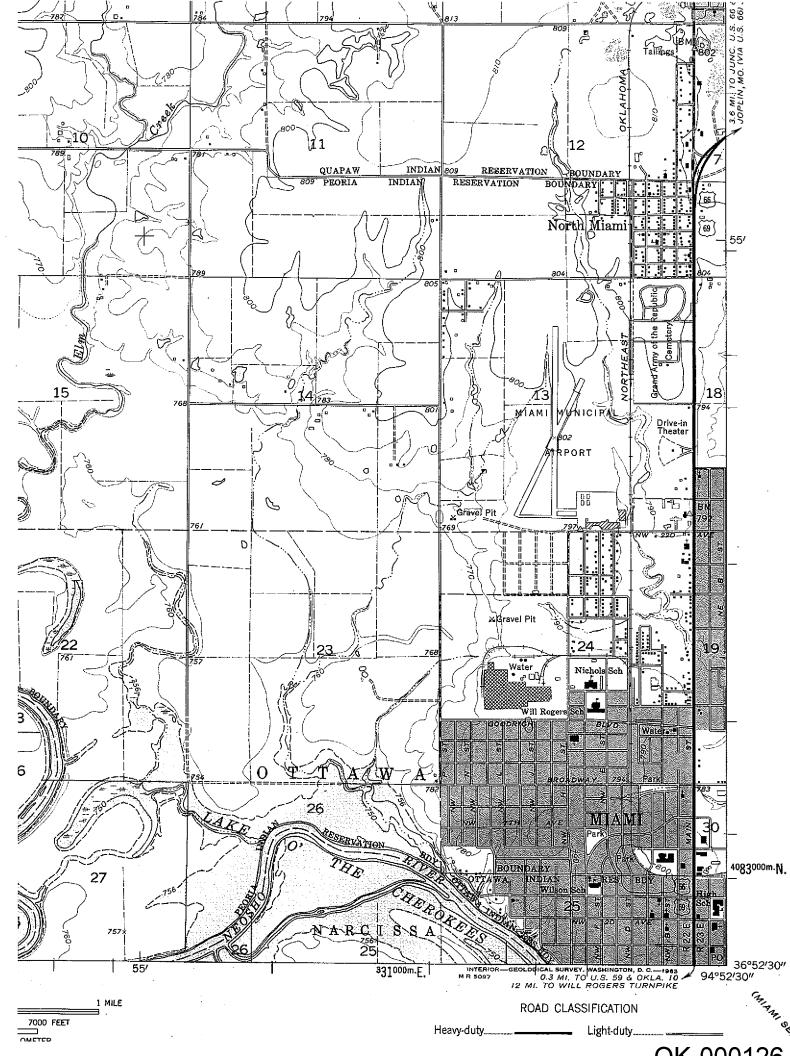
804 804

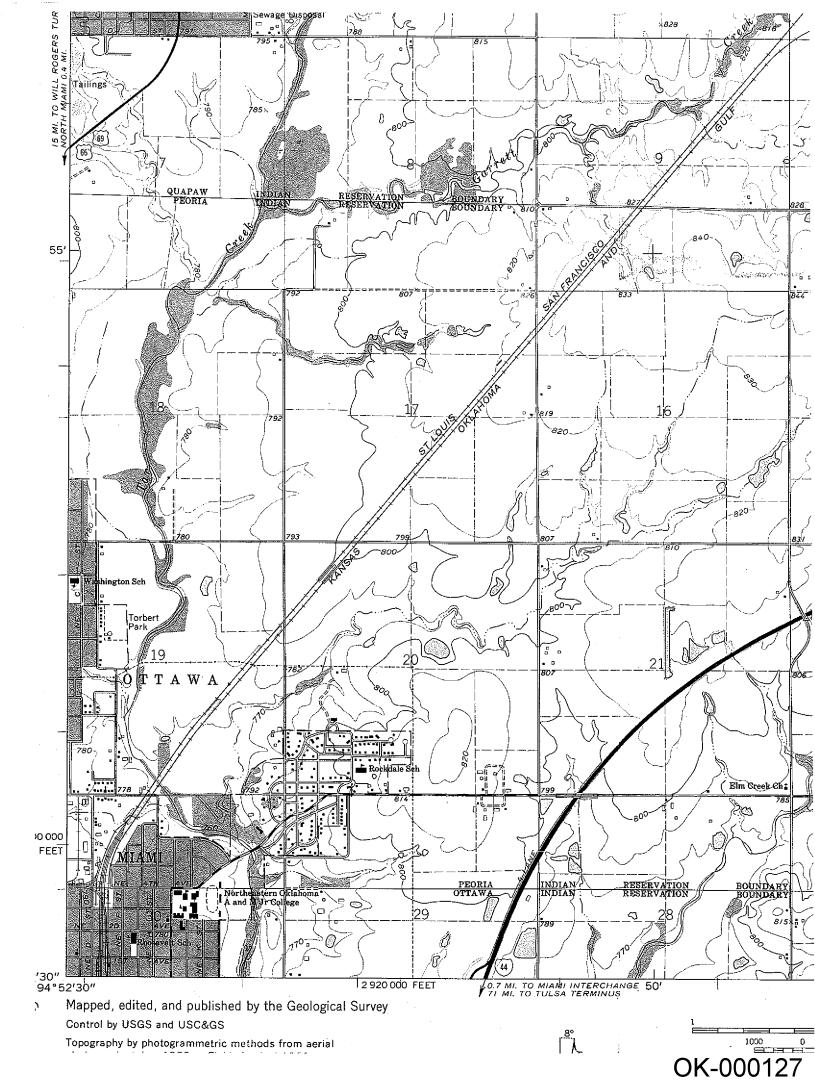
18

17

15

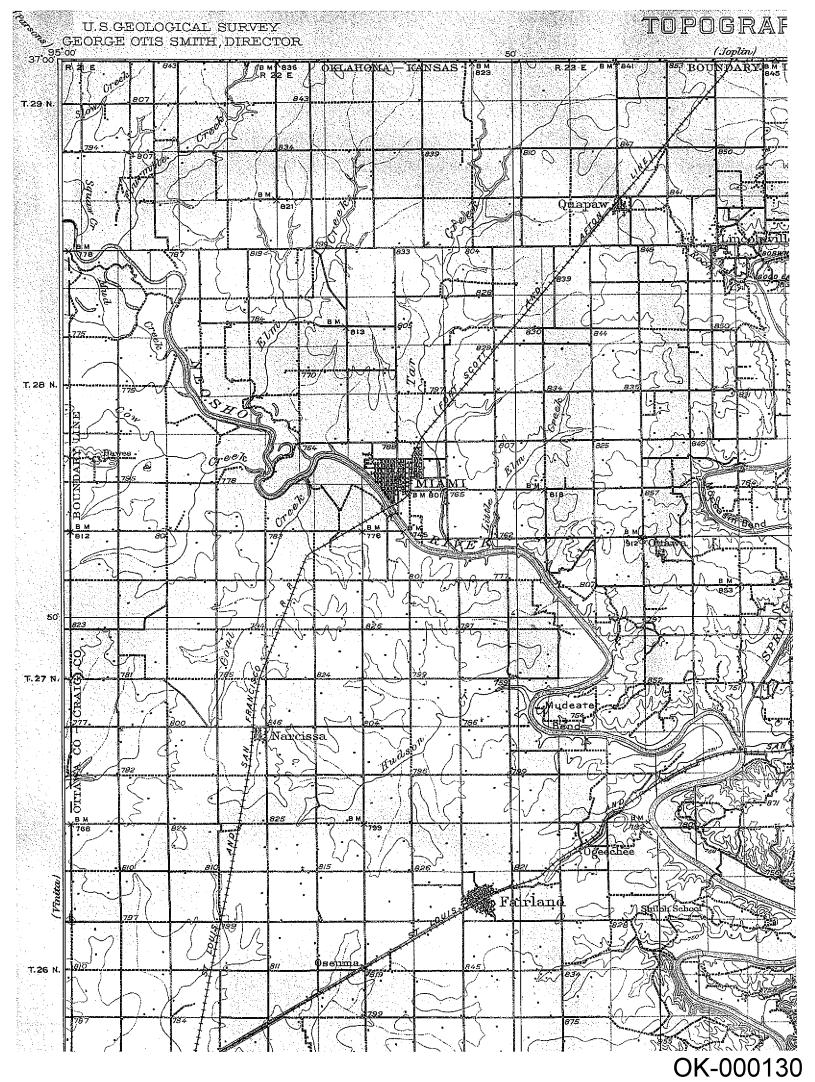
OKLAHOMA 7.5 MINUTE SERIES (TOPOGRAPHIC) 2 910 000 FEET | 25 765 27 TTAWA 36 Coal Creek Cem. Drive-in Trailer BM 763 Theater 10 **(59)** T. 28 **P**otyville T. 27 BURLINGTON 690 0 FEET 0 4080 (125) 4079 4078 504 Codnty Ь 806 4077





# in Mr. UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY JOPLIN. MO. (VIA U.S. 66) 26 MI. 16 MI. TO MISSOURI TERMINUS 94°52′30" 334000m.E. 36°52′30″ 50′ 4082000m.N. HOLLOW 24 MI. WELCH 14 MI. Taylor Park Toligate MIAMI 33 Riverview Park Sewage T. 28 N. T. 27 N. NEOSHO ่อ O--¥ Gravel Pit 10 50' 811 (F) 804 17 18 16 15 OK-000128

# MIAMI SW QUADRANGLE OKLAHOMA 7.5 MINUTE SERIES (TOPOGRAPHIC) ₹ 22 E 2910 000 FEET | R 23 E | NORTH MIAMI 2.9 MI. 94°52'30" 27 25 TTAWA 770 ---36. Coal Creek Cem Drive-in BM 763 ₹59 \ [(10) T. 28 N. Dotyville T. 27 N. 690 000 FEET ٥ 2 0 $I \approx S$ 504 County 810 806 14 18 OK-000129



# Environmental Data Resources, Inc. Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following standard historical sources may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2 page 12.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

## Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

# APPENDIX G 1995 AERIAL PHOTOGRAPH

Project No. 115844.03 Shaw Environmental Inc.



EaglePicher Technologies, 200 BJ Tunnel Blvd., Miami, Oklahoma 74354 1995 USGS Aerial Photo

© 2004 Microsoft Corporation Approximate Property Boundary - Solid Lines

Approximate Location of Drainage Ditch - Dashed Lines

# APPENDIX H CITY DIRECTORY ABSTRACT

Project No. 115844.03 Shaw Environmental Inc.



# The EDR-City Directory Abstract

EaglePicher Technologies LLC Miami 200 B.J. Tunnel Blvd. Miami, OK 74354

May 16, 2005

Inquiry Number: 1420679-7

# The Standard In Environmental Risk Management Information

440 Wheelers Farms Road Milford, Connecticut 06460

**Nationwide Customer Service** 

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

# Environmental Data Resources, Inc. City Directory Abstract

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following standard historical sources may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2, page 12.)

EDR's City Directory Abstract includes a search and abstract of available city directory data.

#### City Directories

City directories have been published for cities and towns across the U.S. since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth century directories are generally divided into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be spotty for rural areas and small towns. ASTM E 1527-00 specifies that a "review of city directories (standard historical sources) at less than approximately five year intervals is not required by this practice." (ASTM E 1527-00, Section 7.3.2.1, page 12.)

NAICS (North American Industry Classification System) Codes

NAICS is a unique, all-new system for classifying business establishments. Adopted in 1997 to replace the prior Standard Industry Classification (SIC) system, it is the system used by the statistical agencies of the United States. It is the first economic classification system to be constructed based on a single economic concept. To learn more about the background, the development and difference between NAICS and SIC, visit the following Census website: http://www.census.gov/epcd/www/naicsdev.htm.

Please call EDR Nationwide Customer Service at 1-800-352-0050 (8am-8pm EST) with questions or comments about your report.

Thank you for your business!

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## 4. SUMMARY

# City Directories:

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1962 through 2004. (These years are not necessarily inclusive.) A summary of the information obtained is provided in the text of this report.

## **Date EDR Searched Historical Sources:**

City Directories

May 16, 2005

Target Property: 200 B.J. Tunnel Blvd. Miami, OK 74354

PUR ID <u>Year</u>	<u>Uses</u>	<u>NAICS</u>	Source
1962	Eagle-Picher Co (Research)		Polk City Directory
1968	Eagle-Picher Industries (Research Lab Electronic Div)		Polk City Directory
1972	Eagle-Picher Industries (Research Lab Electronic Div)		Polk City Directory
1977	Eagle-Picher Industries (Electronic Div)		Polk City Directory
	Eagle-Picher Industries (Electronic Div)		Polk City Directory
	Eagle-Picher Industries		Polk City Directory
_ 1994	Bagle-Picher Industries		Polk City Directory
	Address not Listed in Research Source	N/A	Polk City Directory
2004	Eagle-Picher Technologies		Polk City Directory

# **Adjoining Properties**

## **SURROUNDING**

Multiple Addresses Miami, OK 74354

# PUR ID

Year	Uses	<u>NAICS</u>	Source
1962	**B.J. TUNNELL BLVD (9TH AVE NE)**		
	Address not listed in research source (31)	N/A	Polk City Directory
	Address not listed in research source (35)	N/A	
	Address not listed in research source (36)	N/A	
	Address not listed in research source (107)	N/A	
	Residence (201)		
	Address not listed in research source (203)	N/A	
	Address not listed in research source (207)	N/A	
	Residence (211)		
	Address not listed in research source (213)	N/A	
	Residence (215)		
1968	**B.J. TUNNELL BLVD (9TH AVE NE)**		
	Address not listed in research source (31)	N/A	Polk City Directory

1420679-7 2

PUR ID			
Year 1968 (contin	<u>Uses</u>	<u>NAICS</u>	<u>Source</u>
1700 (6000)	Address not listed in research source (35)	N/A	
	Address not listed in research source (36)	N/A	
	Residence (107)		
	Residence (201)		
	Address not listed in research source (203)	N/A	
	Address not listed in research source (207)	N/A	
	Residence (211)		
	Address not listed in research source (213)	N/A	
	Residence (215)		
1972	**B.J. TUNNELL BLVD (9TH AVE NE)**		Polk City Directory
	Automatic Car Wash (31)		Tolk City DiffCibity
	J & W Mfg Co (35)		
	Burlington Mfg Co (Annex) (36)		
	No Return (107)		
	Residence (201)		
	Address not listed in research source (203)	N/A	
	Address not listed in research source (207)	N/A	
	Residence (211)		
	Address not listed in research source (213)	N/A	
	No Return (215)		
1977	**B.J. TUNNELL BLVD (9TH AVE NE)**		
	Automatic Car Wash (31)		Polk City Directory
	J & W Mfg Co (35)	•	
	Eagle-Picher Industries (Lab) (36)		
	Residence (107)		
	Address not listed in research source (201)	N/A	
	Address not listed in research source (203)	N/A	
	Address not listed in research source (207)	N/A	
	Residence (211)		
	Address not listed in research source (213)	N/A	
	Jane L's Child Care Center (215)		
1982	++D I OWNSTRU I DI UR (OTWI AVIO STRIA+		
1702	**B.J. TUNNELL BLVD (9TH AVE NE)**	NI/A	Polk City Directory
	Vacant (31) Eagle-Picher Industries (Lab) (36)	N/A	
	Residence (107)		
	Address not listed in research source (201)	N/A	
	Address not listed in research source (203)	N/A	
	Address not listed in research source (207)	N/A	
	Transport to the responding source (SO1)	N/A	

Residence (211)

PUR ID			_
Year 1982 (continu	<u>Uses</u>	<u>NAICS</u>	Source
1962 (COHUII	Address not listed in research source (213)	N/A	
	Residence (215)		
1989	**B.J. TUNNELL BLVD**		Polk City Directory
	Vacant (31)	N/A	Tolk Only Discours
	Eagle-Picher Industries (Lab) (36)		
	Residence (107)		
	Address not listed in research source (201)	N/A	
	Anderson's Mini Storage (203)		
	Harlan's Discount Auto (207)		
	Residence (211)		
	Address not listed in research source (213)	N/A	
	Lyon's Play School (215)		
1994	**B.J. TUNNELL BLVD**		Polk City Directory
	Vacant (31)	N/A	Tolk Oldy Directory
	Eagle-Picher Industries (Lab) (36)		
	Vacant (107)	N/A	
	Address not listed in research source (201)	N/A	
	Anderson's Mini Storage (203)		
	Payton's Auto (207)		
	Residence (211)		
-	Address not listed in research source (213)	N/A	
	Lyon's Play School (215)		
1999	**B.J. TUNNELL BLVD**		
	Not Verified (31)		Polk City Directory
	Not Verified (36)		
	Address not listed in research source (107)	N/A	
	Residence (201)		
	Payton's Signs (207)		
	Residence (211)		
	Residence (213)		
	Residence (215)		
2004	**B.J. TUNNELL BLVD**		B 8 60 F
	Post Properties (107)		Polk City Directory
	Residence (201)		
	Residence (211)		
	Residence (215)		

-No other addresses within range

# APPENDIX I TERMINOLOGY

Project No. 115844.03 Shaw Environmental Inc.

#### **TERMINOLOGY**

The following provides definitions and descriptions of certain terms that may be used in this report. Italics indicate terms that are defined by ASTM Standard Practice E 1527. The Standard Practice should be referenced for further detail (such as the precise wording), related definitions or additional explanation regarding the meaning of terms.

recognized environmental condition(s) (REC) - the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions.

de minimis conditions – are conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis are not recognized environmental conditions.

historical recognized environmental condition(s) (HREC) - environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. The final decision rests with the environmental professional and will be influenced by the current impact of the historical recognized environmental condition on the property. If a past release of any hazardous substances or petroleum products has occurred in connection with the property, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition shall be considered a historical recognized environmental condition.

material threat – a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the *environmental professional*, is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank that contains a hazardous substance and which shows evidence of damage such that it may cause or contribute to tank integrity failure with a release of contents to the environment.

material impact to public health or environment – a substantial risk of harm to public health or the environment resulting from the presence or likely presence of an existing release, a past release, or a *material threat* of a release of any *hazardous substances* or *petroleum products* into structures on the *property* or into the ground, ground water, or surface water of the *property*. An example might include a release of a hazardous substance in concentrations exceeding applicable governmental agency standards under conditions that could reasonably and foreseeably result in substantial exposure to humans or substantial damage to natural resources. The risk of that exposure or damage would represent a material impact to public health or environment.

general risk of enforcement action – the likelihood that an environmental condition would be subject to enforcement action if brought to the attention of appropriate governmental agencies. If the circumstances suggest an enforcement action would be more likely than not, then the condition is considered a general risk of enforcement action.

Project No. 115844.03 Shaw Environmental Inc.



PRELIMINARY SITE CHARACTERIZATION
DLVERINE GASKET & MANUFACTURING PLANT
1900 WEST PLEASANT AVENUE
RIVER ROUGE, MICHIGAN

T E C Wolverine Gasket & Manufacturing 1900 West Pleasant Avenue River Rouge, Michigan 48218

PRELIMINARY SITE CHARACTERIZATION WOLVERINE GASKET & MANUFACTURING PLANT 1900 WEST PLEASANT AVENUE RIVER ROUGE, MICHIGAN

Testing Engineers & Consultants, Inc.
P.O. Box 249
1333 Rochester Road
Troy, Michigan 48099
(313) 588-6200 or Dial T-E-S-T-I-N-G

06 October 1989



# Testing Engineers & Consultants, Inc.

P.O. Box 249 • 1333 Rochester Road • Troy, Michigan 48099

313-588-6200 or Dial 313-T-E-S-T-I-N-G

John Banicki, P.E. Kenneth Cummins, L.S., P.E. Gerald M. Belian, P.E. Elihu Geer, PhD. P.E. (1902-1985) Michael Davinich, P.E.

T.E.C. Report Number: 18255-1 Date Issued: 06 October 1989

Wolverine Gasket & Manufacturing Co. 1900 West Pleasant Avenue River Rouge, Michigan 48218

Attention: Mr. Gene Shellie

Re:

Preliminary Site Characterization Wolverine Gasket & Manufacturing Plant 1900 West Pleasant Avenue

River Rouge, Michigan

Dear Mr. Shellie:

Testing Engineers & Consultants, Inc. has completed the preliminary site characterization of the Wolverine Gasket & Manufacturing Plant in the City of River Rouge, Michigan. The attached document contains the project specifications, including results of the Ground Penetrating Radar Survey, field sampling methods, soil boring depths, locations and results of the laboratory analyses of selected soil samples. The soil boring logs and the accompanying analytical results are discussed in the text and are included in the Appendices.

We are pleased to provide these services. Should you have any questions or desire more information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

TESTING ENGINEERS & CONSULTANTS, INC.

Robert J. Nowakowski

Staff Geologist

Gerald M. Belian, P.E.

Executive Vice President

RJN/GMB/rjn Enclosure



All services undertaken subject to the following general policy. Reports are submitted for exclusive use of the clients to whom they are addressed. Their significance is subject to the adequacy and representative character of the samples and to the comprehensiveness of the tests, examinations and surveys made. No quotations from reports or use of TEC'S name is permitted except as expressive authorized by TEC in writing



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Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

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PRELIMINARY SITE CHARACTERIZATION
WOLVERINE GASKET & MANUFACTURING PLANT
1900 WEST PLEASANT AVENUE
RIVER ROUGE, MICHIGAN

#### 1.0 INTRODUCTION

This report summarizes the findings of Testing Engineers & Consultants, Inc. in regard to the preliminary site characterization of the Wolverine Gasket & Manufacturing Plant located at 1900 West Pleasant Avenue, City of River Rouge, Michigan.

A Ground Penetrating Radar Survey was completed to determine the location and depths of the various filled-in trenches so that monitor wells could be placed in areas to best evaluate the groundwater characteristics. During the process Boring #1 was completed to a depth of 35 feet and no groundwater was encountered. As a result, the scope of the project changed and soil borings were completed to penetrate the bottom of one of the trenches and to obtain representative samples of the materials within the trench. Soil samples were obtained at 2.5 foot intervals for Boring #1 and 2 foot intervals for Borings #2 and #3. Duplicate samples were analyzed in the field using an HNU Photo-ionizer. This field screening allows for a more accurate sample selection for the subsequent laboratory analyses.

#### 2.0 LOCATION

The subject property is located at 1900 West Pleasant Avenue, City of River Rouge, Michigan. The site is bordered by West Pleasant Avenue to the north, railroad tracks to the south, and Wolverine Gasket & Manufacturing property to the east and west. Figure 1 indicates the location of the site on a topographic map and is included in Appendix A.

.....continued

Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

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#### 3.0 GROUND PENETRATING RADAR

The Ground Penetrating Radar (GPR) survey was undertaken to determine the location of the on-site trenches and to determine the location of the soil borings. For the radar system, an electomagnetic pulse is generated on the surface of the ground and the reflections from the surface and the subsurface interfaces are displayed on a continuous strip-chart recorder. The results indicated numerous trenches located throughout the site to depths ranging between 3 feet and 10 feet. The approximate locations of these trenches are located on Figure 2, the Site Plan (Appendix A). During the GPR, Survey the presence of large quantities of hard resins and plastics was noted within the vicinity of the presumed trench locations. As a result, it was determined to place one boring in an area away from any trenches and the other two borings directly within the trenches.

#### 4.0 SAFETY PRECAUTIONS

Due to the nature of the site (possible hazardous chemicals), all workers involved in the on-site investigation were required to work at Level C Protection. This required the use of Tyvec suits, gloves, boots and respirators with cartridge filters. All seams between the gloves and boots and the Tyvec suits were sealed so as to prevent any contact of the possible contaminants with the skin. All equipment that came in contact with the soils was either discarded into disposal drums or steam-cleaned between borings. In addition, all leftover cuttings, and rinse-water was also placed in drums. All drums were left on-site to be disposed of by Wolverine Gasket & Manufacturing.

....continued

Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

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#### 4.1 Air Monitoring

During the investigation, the air was continuously monitored for the presence of air-borne contaminants with an HNU Photo-ionizer. The photo-ionizer is a portable trace gas analyzer that can be used to measure a wide variety of organic vapors including chlorinated hydrocarbons, heterocyclics and aromatics, aldehydes and ketones, as well as several inorganic gases including hydrogen sulfide and ammonia. The limit of detection for most species is 0.1 parts per million (ppm) with a range up to 2000 ppm. During the course of the investigation, the air was continuously monitored for the presence of volatile contaminants. At no time did the instrument detect the presence of contaminants in the air. Tables 2a and 2b include all air-monitoring information.

#### 5.0 BORING LOCATION AND DRILLING

The original scope-of-services included the placement of three soil borings to depths which intercept the groundwater table, followed by conversion of the soil borings to permanent groundwater monitoring wells. The first boring (Boring #1) was placed at the far western end of the site to a depth of 35 feet. No groundwater was encountered so it was determined that groundwater-contamination would no longer be a concern regarding this site. The remaining two borings were placed within a trench (along the southern border in a east-west direction) paralleling the railroad tracks. Figure 2, the site plan, indicates

.....continued

Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

T.E.C. Report Number: 18255-1 (Page 4)

# 5.0 BORING LOCATION AND DRILLING (cont'd)

the location of these borings and the soil boring logs are included in Appendix B. All three borings were grouted to the surface. Drilling was accomplished using a truck-mounted drilling rig and hollow stem augers. Soil samples were collected in a hollow split spoon sampler. The collected samples were placed in distinctively labelled, separately precleaned glass jars with Teflon lined screw-on lids, in order to maintain sample integrity.

### 5.1 Subsurface Geology

One boring (#1) was completed to a depth 35 feet to determine the subsurface conditions and to determine the depth of groundwater. No groundwater was encountered and the underlying soils consist of at least 35 feet of wet, plastic blue clay overlain by 1 to 12 feet of fill.

## 5.2 Field Screening Results

Field screening of samples for contamination was also accomplished using an HNU Photo-ionizer. Field screening of duplicate samples helps define the extent of contamination while giving a better indication of which soil samples should be analyzed. The results of this screening are summarized in Table 1 for all three borings. Boring #1 indicated very slight contamination in the uppper 5 feet and non-detectable levels below 5 feet. Boring #2 and #3 (located within a trench) indicated moderate to high levels of contamination (25 - 260 parts per million) down to a depth of 8 feet. Below this, no contamination was detected by the Photo-ionizer. The levels of contamination were highest at the bottom of the trench just above the clay.

....continued

Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

T.E.C. Report Number: 18255-1 (Page 5)

#### 6.0 ANALYTICAL RESULTS

Initially, six samples were submitted to the laboratory of Testing Engineers & Consultants, Inc. to be analyzed for Volatile Organics (EPA Method 8240) and Semi-Volatile Organics (EPA Method 8270). These two EPA Methods were chosen because they would scan for a number of compounds used in the processes of Wolverine Gasket & Manufacturing. The samples analyzed were Boring #1, 5.0 and 10.0 feet; Boring #2, 4.0 and 8.0 feet; and Boring #3, 4.0 and 10.0 feet. The sample selection was designed to provide an accurate cross-section of contaminants within the trenches.

The results indicated no-detection of any of the tested parameters of EPA Method 8270 and EPA Method 8240. However, the laboratory director of Testing Engineers & Consultants, Inc. indicated that there were a number of unidentified compounds below the detection limit. It appears that the contaminants within the trenches have degraded and no longer retain there original characteristics. As a result, this, one sample (Boring #3, 10.0 feet) was submitted to be analyzed for Total Petroleum Hydrocarbons (EPA Method 418.1). The results indicated 102 parts per million of Total Petroleum hydrocarbons (Unidentifiable components).

#### 7.0 CONCLUSIONS

Testing Engineers & Consultants, Inc. has completed the Preliminary Site Characterization of the Wolverine Gasket & Manufacturing Plant in River Rouge, Michigan. Initially, the three borings were going to be converted to permanent monitor wells. However, boring #1 was completed to a depth of 35 feet and no

.....continued

Wolverine Gasket & Manufacturing Co. Mr. Gene Shellie 06 October 1989

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### 7.0 CONCLUSIONS (cont'd)

groundwater was encountered, so it was decided not to bore deeper and risk cross-contamination of a deep aquifer. The other two borings were placed within a trench to define the levels of contamination involved. This trench was located along the southern border of the property, paralleling the property. The Ground Penetrating Radar Survey indicated a maximum depth of the trenches of about 8 to 10 feet. This was confirmed with the placement of Boring #2 and #3 which penetrated through the trench into clay at 8.0 feet. Moderately high levels of contamination were located within the trench, with the highest levels just above the clay. Analytical testing could not confirm the exact chemical constituents of the trenches and they can only be defined as Total Petroleum Hydrocarbons. It appears that the thick clay formation has prevented the migration of the contaminants to the groundwater table, although some migration of contaminants off-site along the railroad tracks is possible and has not been determined.

As a result of this preliminary site characterization, it is recommended by Testing Engineers & Consultants, Inc. that further work be performed to define the lateral and vertical extent of contamination throughout the site. This would include more borings combined with analytical testing. Although, the exact compounds could not be identified within the one examined trench, it cannot be assumed that all of the trenches will contain the same levels or types of contaminants due to the different ages of the trenches.

\* \* \* \* \*

APPENDIX A FIGURES AND TABLES

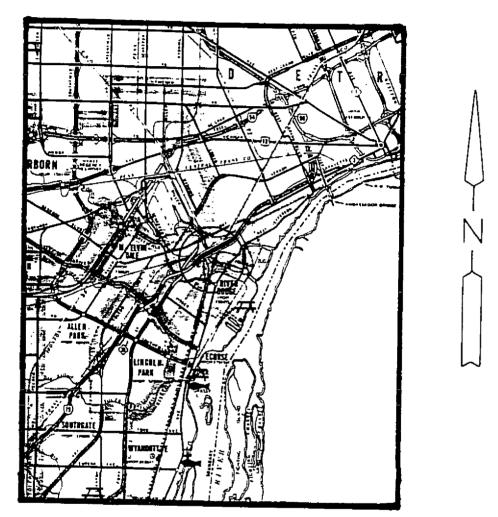


FIGURE 1: WOLVERINE GASKET MANUFACTURING PLANT

RIVER ROUGE WAYNE COUNTY MICHIGAN

SCALE 3/8" = 1.0 MILE

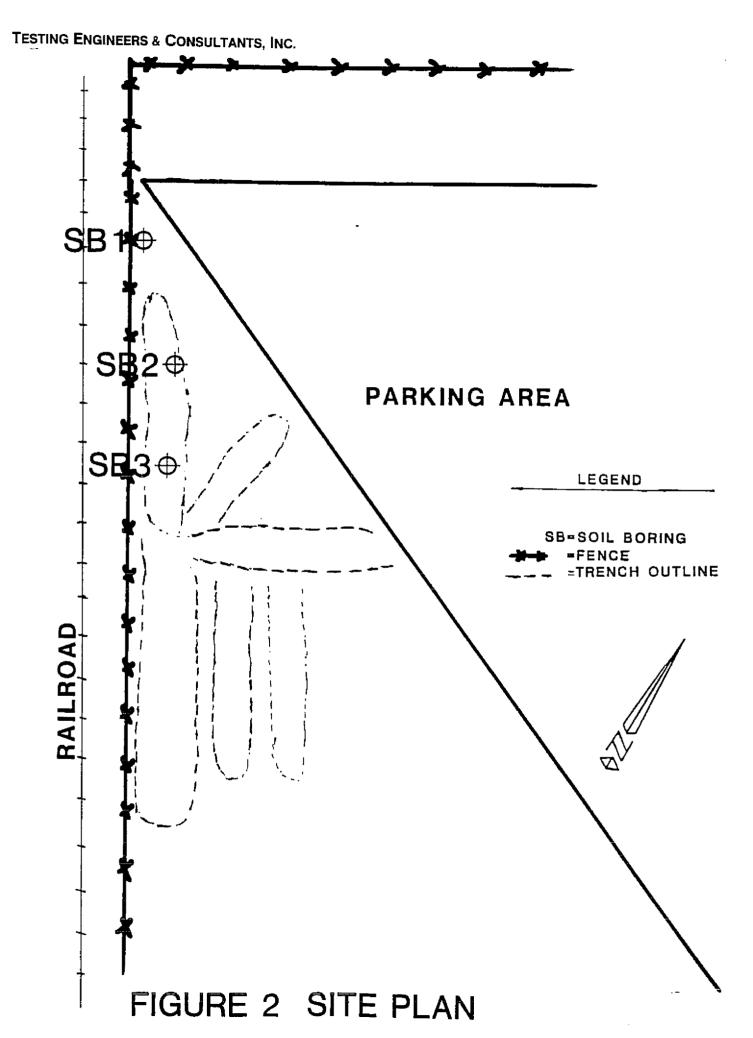


Table 1

HNU Readings in ppm (parts per million) of soil samples for Wolverine Gasket Plant, River Rouge, Michigan

Soil Boring	Depth in feet from surface	Type of Soil	HNU Reading in ppm
1 1	2.5 5	fill sand fill	12
1	7.5 10	plastic clay	18 ND
i	15	plastic clay plastic clay	ND ND
1	20 25	plastic clay plastic clay	ND ND
1 1	30 35	plastic clay plastic clay	ND ND
2	2	fill	
2 2 2 2 2	4 6	sand fill	25 15
2	8	sand fill sand fill	18 230
	10	plastic clay	ND
3	2 4	fill sand fill	30 26
3 3 3 3 3	6 8	sand fill sand fill	35 260
3	10	plastic clay	ND

ND = Below detection limit of 0.0 parts per million ppm = parts per million (mg/Kg)
All HNU readings are stated above the background level of 0.5 ppm

Table 2-a

## Daily Site Air Monitoring Log

Date: 18 August 1989

Weather:

Temperature: 70 to 85 degrees Farenheit Wind: To the south at 0-5 mph

Condition: clear

Equipment ID and Calibration HNU Meter ID# 901117

Span set at 8.4 at 57ppm of benzene

Soil Boring	Time	HNU units in ppm	*Spike HNU units in ppm
Background		0.2	
1	1015	ND	ND
1	1030	ND	ND
1	1100	ND	ND
1 1	1115	ND	ND
1	1130	ND	ND
1	1145	ND	ND
1	1200	ИD	ND
1	1215	ND	ND
1	1230	ND	ND
1	1245	ND	ND
1	1300	ND	ND
Ţ	1315	ND	ND
1 1	1330	ND	ND
	1345	ND	ND
<u> </u>	1400	ND	ND
1 T	1415	ND	ND
1 1 1	1430	ND	ND
	1445	ND	ND
1	1500	ND	ND
1 1	1515	ND	ND
7	1530	ND	ND

ND = Below detection limit of 0.0 parts per million ppm = parts per million

<sup>\*</sup> HNU Spike units represent the highest recorded peak (spike) between the regular recording untervals. The peak is a needle deflection that lasts less than 5 seconds

Table 2-b

### Daily Site Air Monitoring Log

Date: 19 August 1989

Weather:

Temperature: 75 to 87 degrees Farenheit

Wind: To the south at 10-15 mph

Condition: clear

Equipment ID and Calibration HNU Meter ID# 901117

Span set at 8.4 at 57ppm of benzene

Soil Boring	Time	HNU units in ppm	*Spike HNU units in ppm
Background		0.3	
2	945	ND	ИД
2	1000	ND	ND
2	1015	ND	ND
2	1030	ND	ND
2 2 2 2 2 2	1045	ND	ND
	1100	ND	ND
2 2 2	1115	ND	ND
2	1130	ND	ND
2	1145	ND	ND
3 3 3 3 3 3 3 3 3	1215	ND	ND
3	1230	ND	ND
3	1245	ND	ND
3	1300	ND	ND
3	1315	ND	ND
3	1330	ND	ND
3	1345	ND	ND
3	1400	ND	ND
3	1415	ND	ND
3	1430	ND	ND
3	1445	ND	ND

ND = Below detection limit of 0.0 parts per million ppm = parts per million

<sup>\*</sup> HNU Spike units represent the highest recorded peak (spike) between the regular recording untervals. The peak is a needle deflection that lasts less than 5 seconds

APPENDIX B
SOIL BORING LOGS





P.O. Box 249 • 1333 Rochester Road • Troy, Michigan 48099 (313) 588-6200

soil borings

soil evaluation

foundation investigation

instrumentation

BORING NO	# 1		JOB N	IO. 18255 PROJECT PRELIMINARY SITE CHARACTER	IZATION				
Ground Suri	face (E	lev.)			Wolverine Gasket & Manufacturing Plant				
				1900 West Pleasant Avenue			<del></del>		
				The was reading well as					
CLIENT: Wo	lverin	e Gasket	& Manufa	octuring Co. Location: River Rouge, Michigan			<del></del>		
				Started 19 August 1989 Completed					
				Driller: P. Christ					
				HOLLOW STEM AUGERS					
DEPTH IN FEET	SA! TYPE	MPLE   "N"	STRATA CHANGE	SOIL CLASSIFICATION	W		q <sub>u</sub>		
-				Brown Medium SAND & Silt With Plastic Scrap On Surface	-				
- - 	SS	7 12 10		Stiff Moist Brown SILT With Trace Of Clay & Fine Brown Sand					
- - 5	SS	4 10 10							
-			_7'6"				1		
-			_	Soft To Plastic Wet Blue CLAY With Trace Of Sand &					
10	SS	2 2 2		Silt					
- - -							:		
-	ss	1 2 2							
15* - - -		ı			i				
		_							
- 20 <b></b> -	ss ——	1 1 2							
-									
 - -		4				:			
25 <b></b> -	ss ———	1 2 2		Continued Sheet 1 of 2					
				Continued Sheet 1 of 2		I	f		

Mu .	-	Standard	Penetration	Resistance
------	---	----------	-------------	------------

WATER ENCOUNTERED 61 AT COMPLETION 7' Cave-In

Boring No.<u>#1 /da</u>

S.S. - 2" O.D. Split Spoon Sample L.S. - Sectional Liner Sample S.T. - Shelby Tube Sample B.S. - Bottle Sample

d - Natural Density-lbs. cu. ft.
'H-N' - Housel Penetration Resistance
H.S. - Housel Sample
q - Unconfined Compression lbs. sq. ft.
w - H<sub>2</sub>0% of dry weight





P.O. Box 249 • 1333 Rochester Road • Troy, Michigan 48099 (313) 588-6200

crit	አለ	rine	e

soil evaluation

foundation investigation

instrumentation

BORING NO.	# 1		JOB &	O. 18255 PROJECT PRELIMINARY SITE CHARACTER	IZATION				
Datum									
CLIENT: Wo	<u>olverin</u>	e Gasket	& Manufa	cturing Co. Location: River Rouge, Michigan		· · · · · · · · · · · · · · · · · · ·	<del></del>		
				Started 19 August 1989 Completed	19 Aug	ust 1989			
				Driller: P. Christ					
				HOLLOW STEM AUGERS	-				
DEPTH IN FEET	TYPE	MPLE "N"	STRATA CHANGE	SOIL CLASSIFICATION Soft To Plastic Wet Blue CLAY With Trace Of Sand &	W	В	q <sub>u</sub>		
-  - - - - - - - - - - -	SS	2 2 2		Silt					
	SS	1 2 2	35'0"						
35 - - - - - - - - - - - - - - - - -		-		END OF BORING					
45									
50				Sheet 2 of 2					

"N" - Standard Penetration Resistance S.S. - 2" O.D. Split Spoon Sample L.S. - Sectional Liner Sample S.T. - Shelby Tube Sample B.S. - Bottle Sample

d - Natural Density-lbs. cu. ft.
'H-N' - Housel Penetration Resistance
H.S. - Housel Sample
q - Unconfined Compression lbs. sq. ft.
H20% of dry weight

WATER ENCOUNTERED 6' AT COMPLETION 7' Cave-In

Boring No. # 1 /da





P.O. Box 249 • 1333 Rochester Road • Troy, Michigan 48099 (313) 588-6200

soil borings

soil evaluation

foundation investigation

instrumentation

BORING NO	# 2		JOB \$	O. 18255 PROJECT PRELIMINARY SITE CHARACTER	ZIZATION				
Ground Surt	face (E	lev.)			Wolverine Gasket & Manufacturing Plant				
l				1900 West Pleasant Avenue					
CLIENT: Wo	<u>olv</u> erin	e Gasket	& Manufa	cturing Co. Location: River Rouge, Michigan					
		U-W		Started 19 August 1989 Completed	19 Aug	ust 1989			
				Driller: P. Christ					
DEPTH IN			T-070474	HOLLOW STEM AUGERS					
FEET	TYPE	MPLE	STRATA CHANGE	SOIL CLASSIFICATION	u	ď	٩٥		
- - -	SS	6 6 6	2,0,,	Medium Compact Brown SAND With Plastic Scrap On Surface					
	SS	6 4 5		Firm Brown SILT & Medium Sand With Trace Of Small Pebbles	•				
-		1	4'0"	U. at					
5	\$\$	5 6 5		Medium Compact Brown Fine SAND With Trace Of Silt					
-		6							
	SS	2	7'11"						
-			8'0"	Plastic Blue CLAY With Trace Of Medium Sand					
-				END OF BORING					
10									
-									
-			l						
-									
-									
15									
-									
-						İ			
-									
-									
20									
-									
-							·		
-		i							
-									
25									
- 1			1 1		ı	I			

"N" - Standard Penetration Resistance

"N" - Standard Penetration Resist S.S. - 2" O.D. Split Spoon Sample L.S. - Sectional Liner Sample S.T. - Shelby Tube Sample B.S. - Bottle Sample

d - Natural Density-lbs. cu. ft.
'H-N' - Housel Penetration Resistance
H.S. - Housel Sample
q - Unconfined Compression lbs. sq. ft.
w - H<sub>2</sub>0% of dry weight

WATER ENCOUNTERED None AT COMPLETION None

Boring No.<u>#2 /da</u>





P.O. Box 249 • 1333 Rochester Road • Troy, Michigan 48099

	(3	13) 588-6200	
soil borings	soil evaluation	foundation investigation	instrumentation

BORING NO	#_3		JOB N	o. <u>18255</u>	PROJECT	PRELIMINARY SI	TE CHARACTER	ZATION		
						Wolverine Gask				
						1900 West Plea				
					_					
CLIENT: Wo	lverine	<u>Gasket</u>	& Manufa	cturing Co.	Location:	River Rouge, M	ichigan			
<del></del>					Started	19 August 1989	_ Completed_	19 Augu	ıst 1989	
-					Driller:_	P. Christ				
DEBTH 111	PAL	IDI P	OTDATAT.		HOLLOW STEM A	UGERS				
DEPTH IN FEET	TYPE	IPLE	STRATA CHANGE		SOIL CLASSIFI			¥	d	q <sub>u</sub>
-	SS	6 8 8	2:0"	Stiff Brown CL Pebbles With	AY & Coarse Sa Plastic Scrap	nd With Silt & S On Surface	mall			
	SS	5 5 5	4+0"	Medium Compact (Strong Odor)	Brown Medium	SAND With Trace	Of Silt			
- - 5	<u></u>	5 4 5		Medium Compact (Strong Odor)	Light Brown S	AND With Trace O	f Silt			
	ss	5 5 5	Medium Con (Strong C	Medium Compact (Strong Odor)	Medium Compact Dark Brown SAND With Trace Of Silt (Strong Odor)					
- - -	SS	5 4	910"							
10		3	10'0"	Plastic Blue C						;
- -					END OF BOR	ING			,	,
-										
 -										
15										
-										
- -										
20										
-										
-										
25 -										
										······································

មៀម	-	Standard	Penetrati	ian I	Resistance

WATER ENCOUNTERED None AT COMPLETION None

Boring No. #3 /da

S.S. - 2" O.D. Split Spoon Sample L.S. - Sectional Liner Sample S.T. - Shelby Tube Sample B.S. - Bottle Sample

d - Natural Density-lbs. cu. ft.
'H-N' - Housel Penetration Resistance
H.S. - Housel Sample
q - Unconfined Compression lbs. sq. ft.
w' - H<sub>2</sub>0% of dry weight

APPENDIX C

ANALYTICAL RESULTS

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REPORT 18295

DATE 10 SERTEMBER 1999

CLIENT WELLVERING GARD MINUFACTURING COMMANS

PROJECT FRELIMINAR EIT. HARACTERIZATION
```

#### SERVICE .DENTIFICATION

TEC LAR ID =	EAMPLE DESCRIPTION
19737	Monitoring Well #1 @ 5 0 Fill
19738	Monitoring Well #1 & 10 0°, Rive Clay
19739	Soil Boring #2 @ 4 0% Fill/Clay
19740	5011 Boring #2 @ 8 0°. F:11
19741	Soli Boring #3 @ 4 0: Fill
19742	Soil Boring #3 & 10 Or. F:11

REPORT 18255

PAGE 1 OF E

DATE 13 SEPTEMBER 1984

CLIENT WOLVERINE GASSES & MANUFACTURING COMPANY

PROJECT PRELIMINAR SITE HARACTERIZATION

TEC LAW ID # 19731

SAMPLE DESCRIPTION - MONITORING WELL #1 @ 5 0% FILL

## Volutite Organics in Soil 1

<u>Parameter</u>	CONCENTRATION Lug/Kg)
Chloromethane	10
Bromomethane	10
Vingl Chiotide	10
Chloroethane	
Methylene Chloride	10
Acetone	10
Carbon Diselfide	100
1,1-Dichiorethene	5
1.1-Dichlorgethane	5 . 5
Trans-1,2-Dichloroethane	
Chloroform	£.
1,2-Dichloroethane	5
2-Butanone	ע ז נ
1, 1, 1-Trichloroethane	. 5
Carbon Tetrachloride	5
Vinui Acetate	. 5
Bromodichloromethane	50
1, 1, 2, 2, -Tetrachloroethan	1 5
1.2-Dichloroproprans	5
Trans 1,3-Dichloropropen-	E -
Trichloroethene	5
Dibromochloromethane	<u>.</u> 5
1, 1, 2-Trichloroethane	5
Benzene	5
Cis-1,3-Dichloropropene	5
2-Chloroethul Vinul Ethe	: 5
Bromeform	10
2-Hexanone	: 5
4-Methyl-2-Pentanone	50
, neongr = 1 chtmanune	I <b>5</b> 0

REPORT 15255

PAGE 2 OF 2

DATE 13 SEPTEMBER 1990

CLIENT WOLVERINE GREET L MANUFACTURING COMPANY

PROJECT PRELIMINAR SITE HARACTERIZATION :

TEC LAR ID # 19737

SAMPLE RESCRIPTION - HONTITSING WELL #1 & 1 074 FILL

Voletie organics in Soil i

Parameter	CONCENTRATION (ug/Kg)
Tetrachlorosthene	. 5
Toluene	5
Chlorobenzene	: 5
Ethyl Benzene	. 5
Styrene	. 5
Total Xylenes	. 5
· ¬	. J

ug/Kg = Parts Per Billion

A less than symbol (2) indicates that the parameter was not detected at or above the stated  $1: \text{ord} \ \text{o} \cdot \ \text{detection}$ 

EPA Method 8240 "Gas Chibmatorraphy/Mass Spectrometry For Volatile Organics" Test Methods for the Evaluation of Solid Waste EPA-SW84c November 1986

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REPORT 19737 1 OF 2

DATE 13 SEPTEMBER 1934

CLIENT WOLVERING GASKET & MANUFACTURING COMPANY FOR PROJECT PRELIMINARY SYTE CHARACTERIZATION

TEC LAB 1D # 1979T

SAMPLE DESCRIPTION MODITORING WELL #1 @ 5 0 FILL
```

## Semi-Volstile Organics in Soil 1

<u>Parameter</u>	Concentration(mg/Kg)
Acenaphthene	
Acenaphthylene	< 1
Anthracene	
Benzidine	<u> </u>
Benzo(a)anthracene	-{ <u>1</u>
Benzo(b)fluoranthene	□ 1 < 1
Benzo(k)fluoranthene	
Benzo(a)pyrene	
Benzo(ghi)perylene	
Bis(2-chloroetnyl)etner	√1 1 √2 1 √2 1 √1 1
Bis(2-chloroethoxy)methane	
Bis(2-chlorossopropyl)ether	7 1
Bis(2-ethynexyl)phthalate	
4-Bromophenyl phenyl ether	
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	< 1
2-Chloronaphthalene	< 1
2-Chlorophenol	1 1
4-Chlorophenyl phenyl ethu:	7 1
Chrysene	4 1
Di-n-butylphthalate	4 1
Dibenzo(a, h)anthracene	< 1
1.2-Dichlorobenzene	€ 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
3.3'-Dichlorobenzidine	< 1
	< 1
2,4-Dichlorophenol	< 1
Diethylphthalate	√2 <u>1</u>
E. 4-Dimetrylphenol	< 1
Dimethyl phthalate	47 1
4.o-Dinitro-S-methylphene.	< 1
2.4-Dinitrophenol	< 1
2.4 Dinitrotoluene	√ 1
2. a-Dinitrotoluene	₹ 1
Di-n-ectulphthalate	< <u> </u>
1, 2-Dipmenulhydrazine	<. 1
Fluoranthene	< 1
Fluorene	<ul> <li>1</li> </ul>

REPORT: 18255

2 OF 2

DATE: 13 SEPTEMBER 1989

TEC LAB ID#: 19737

Parameter
-----------

## Concentration(mq/Kq)

Hexachlorobenzene	_	
Hexachlorobutadiene		1
Hexachlorocyclopentadien-		1
Hexachloroethane		
Indeno(1,2,3-cd)pyrene		-
Isophorone		-
Naphthalene		1
Nitrobenzene		1
2-Nitrophenol	Ç	1
4-Nitrophenol		1
N-Nitrosodiphenylamıne	8 <u>-</u>	
N-Nitroso-Di-N-propylamine	•:	
Pentachlorophenol	۲.	
Phenanthrene	< <u>.</u>	
Phenol	- 0	
Pyrene	:_	1
1,2,4-Trichlorobenzene		1
2,4,6-Trichlorophenol	·.	1
		1

mg/Kg = parts per million

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semi-volatile Organics: Capillary Column Technique" Test methods for Evaluating Solid Waste 80-846. November 1986.

<u>Scott Chandler, IHIT</u> Laboratory Director

- REPORT. 18255

PAGE 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19736

SAMPLE DESCRIPTION. MONITORING WELL #1 @ 10.0% BLUE CLAY

### Volatile Organics in Soil 1

<u>Parameter</u>		NTRATION 1/Kq)
Chloromethane	<	10
Bromomethane	<	10
Vinyl Chloride		10
Chloroethane		10
Methylene Chloride		10
Acetone		100
Carbon Disulfide		5
1.1-Dichlorethene	مي	5
1,1-Dichloroethane	<	5 5 5 5 5 5
Trans-1,2-Dichloroethane	<	5
Chloroform	<	5
1,2-Dichloroethane	<	5
2-Butanone	KZ.	5
1,1,1-Trichloroethane	€	5
Carbon Tetrachloride	<	5
Vinyl Acetate	< <u>-</u>	50
Bromodichloromethane	<_	5
1.1.2.2Tetrachloroethans	-	
1.2-Dichloroproprane	· <u>"</u>	5
Trans 1.3-Dichloropropens	~~~~~	5
Trichloroethene	<_*	5
Dibromochloromethane	<	5
1.1.2-Trichloroethane	4°_	5
Benzene	<b>5</b> .	5
Cis-1,3-Dichloropropene	<	
2-Chloroethyl Vinyl Ether	<	10
Bromoform	₹	5
2-Hexanone	<	
4-Methyl-2-Pentanone	<_	50

.continued

REPORT 16255

PAGE 2 OF 2

DATE: 13 SEPTEMBER 1980

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE "HARACTERIZATION

TEC LAB ID #: 19738

SAMPLE DESCRIPTION: MONITORING WELL #1 @ 10.0% BLUE CLAY

## Volatile Organics in Soil 1

Parameter	CONCENTRATION (ug/Kq)	
Tetrachloroethene	< 5	
Toluene	√. 5	
Chlorobenzene	5 · ·	
Ethyl Benzene	< 5	
Styrene Total Xylenes	∜ 5	
rotal Aylenes	: 5	

ug/Kg = Parts Per Billion

A less than symbol (C) indicate: that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8240 "Gas Chromatography/Mass Spectrometry For Volatile Organics" Test Methods for the Evaluation of Solid Waste. EPA-SW846. November 1986.

REPORT. 19737

1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19738

SAMPLE DESCRIPTION: MONITORING WELL #1 @ 10.0% BLUE CLAY

## Semi-Volatile Organics in Soil 1

Parameter	Concentration(mg/Kg)
Acenaphthene	
Acenaphthylene	< 1
Anthracene	< 1
Benzidine	< 1
Benzo(a)anthracene	< 1
Benzo(b)fluoranthene	< 1
Benzo(k)fluoranthene	< 1
Benzo(a)pyrene	< 1
Benzo(ghi)perylene	< 1
Bis(2-chloroethyl)ether	€ 1
Bis(2-chloroethoxy)methane	< 1
Bis(2-chloroisopropyl)ether	< 1
Bis(2-ethyhexyl)phthalate	< 1
A-Broachsen's short at a te	< 1
4-Bromophenyl phenyl ether	< 1
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	< 1
2-Chloronaphthalene	< 1
2-Chloropheno!	< 1
4-Chlorophenyl phenyl ether	< <u> </u>
Chrysene	$\leq \frac{1}{1}$
Di-n-butylphthalate	< 1
Dibenzo(a.h)anthracene	< 1
1,2-Dichlorobenzene	< 1
1,3-Dichlorobenzene	$\hat{\zeta}$ $\hat{1}$
1.4-Dichlorobenzene	<ul> <li>₹ 1</li> </ul>
3,3'-Dichlorobenzidine	
2.4-Dichlorophenol	€ 1
Diethylphthalate	< i
2.4-Dimethylphenol	< 1 1
Dimethyl phthalate	$\stackrel{\sim}{<}$ 1
4.5-Dinitro-2-methylphenol	< 1
2.4-Dinitrophenol	
2.4 Dinitrotaluene	< 1 < 1
2.6-Dinitrotoluene	
Di-n-octylphthalate	<u> </u>
1,2-Diphenylhydrazine	< 1
Fluoranthene	< 1
Fluorene	<_ 1
· · · · · · · · · · · · · · · · · · ·	< 1

REPORT: 18255

2 OF 2

DATE 13 SEPTEMBER 1989

TEC LAB ID#: 19738

#### <u>Parameter</u>

### Concentration(mg/Kg)

Hexachlorobenzene Hexachlorocyclopentadiene Hexachlorocyclopentadiene Hexachlorocthane Indeno(1, 2, 3-cd)pyrene Isophorone Naphthalene Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodiphenylamine N-Nitroso-Di-N-propylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1, 2, 4-Trichlorobenzene 2, 4, 6-Trichlorophenol				
2,4,6-Trichlorophenol	Hexachlorocyclopentadiens Hexachlorocyclopentadiens Hexachloroethane Indeno(1, 2, 3-cd)pyrene Isophorone Naphthalene Nitrobenzene 2-Nitrophenol 4-Nitrophenol N-Nitrosodiphenylamine N-Nitrosodiphenylamine Pentachlorophenol Phenanthrene Phenol Pyrene 1, 2, 4-Trichlorobenzene	888888888888888888888888888888888888888	1 1 1 1 1 1 1	
	1, 2, 4-Trichlorobenzene	4 4 4	1 1 1	

mg/Kg = parts per million

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

i EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semivolatile Organics: Capillary Column Technique." Test methods for Evaluating Solid Waste SW-84c. November 1986.

> Serie 1 , man Scott Chandler, IHIT

Laboratory Director

REPORT: 18255

PAGE 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #. 19739

SAMPLE DESCRIPTION: SOIL BORING #2 @ 4.0% FILL/CLAY

## Volatile Organics in Soil 1

Parameter	CONCENTRATION (uq/Kq)
Chloromethane	< 10
Bromomethane	< 10
Vinyl Chloride	< 10
Chloroethane	< 10 < 10
Methylene Chloride	< 10
Acetone	
Carbon Disulfide	100
1,1-Dichlorethene	< 5
1,1-Dichloroethane	∜ 5 ₹ 5
Trans-1,2-Dichloroethane	
Chloroform	
1,2-Dichloroethane	
2-Butanone	•
1,1,1-Trichloroethane	< 100 < 5
Carbon Tetrachloride	
Vinyl Acetate	
Bromodichloromethane	
1, 1, 2, 2, -Tetrachloroethane	
1,2-Dichloroproprane	< 5 < 5
Trans 1.3-Dichloropropens	
Trichloroethene	
Dibromochloromethane	
1, 1, 2-Trichloroethane	< 5
Benzene	Ç 5
Cis-1,3-Dichloropropene	< 5
2-Chloroethyl Vinyl Ether	< 5
Bromoform	< 10
2-Hexanone	< <u>5</u>
4-Methyl-2-Pentanone	< 50
· ··	€ 50

.continued

REPORT: 18255

PAGE 2 OF 2

DATE: 13 SEPTEMBER 1985

CLIENT. WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19739

SAMPLE DESCRIPTION: SOIL BORING #2 @ 4.0% FILL/CLAY

#### Volatile Organics in Soil 1

<u>Parameter</u>		CONCENTRATION (uq/Kq)		
Tetrachloroethene	< 5			
Toluene	₹ 5			
Chlorobenzene	√ 5			
Ethyl Benzene	₹ 5			
Styrene	< 5			
Total Xylenes	< 5			

ug/Kg = Parts Per Billion

A less than symbol ( $\leq$ ) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8240: "Gas Chromatography/Mass Spectrometry For Volatile Organics". Test Methods for the Evaluation of Solid Waste. EPA-SW846. November 1986.

REPORT: 19737 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19739

SAMPLE DESCRIPTION: SOIL BORING #2 @ 4.0', FILL/CLAY

## Semi-Volatile Organics in Soil 1

Parameter	Concentration(mq/Kq)
Acenaphthene	·-—
Acenaphthylene	< 1
Anthracene	< 1
Benzidine	< 1
Benzo(a)anthracene	< i
Benzo(b)fluoranthene	< 1
Benzo(k)fluoranthene	< 1
Benzo(a)pyrene	< 1
Benzo(ghi)perylene	< 1
Bis(2-chloroethyl)ether	< 1
Bis(2-chloroethoxy)methane	< 1
Bis(2-chloro:sopropyl)ether	< 1
Bis(2-ethyhexyl)phthalate	< 1
4-Bromophenyl phenyl ether	< 1
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	< 1
2-Chloronaphthalene	< 1
2-Chlorophenol	< 1
4-Chlorophenyl phenyl ether	< 1
Chrysene	< 1
Di-n-butylphthalate	< 1
Dibenzo(a, h) anthracene	< 1
1,2-Dichlorobenzene	< 1
1.3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
3.3'-Dichlorobenzidine	< 1
2.4-Dichlorophenol	< 1
Diethylphthalate	< 1
2.4-Dimethylphenol	< 1
Dimethyl phthalate	€ 1
4.6-Dinitro-2-methylphenol	< 1
2.4-Dinitrophenol	< 1
2,4 Dinitrotoluene	< 1
2.6-Dinitrotoluene	< 1
Di-n-octylphthalate	< 1
1,2-Diphenylhydrazine	< 1
Fluoranthene	< 1
Fluorene	< 1
-···	< 1

REPORT: 18255 2 OF 2

DATE: 13 SEPTEMBER 1989

TEC LAB ID#: 19739

#### Parameter

#### Concentration(mg/Kg)

University and a second		
Hexachlorobenzena	+:	1
Hexachlorobutadiene	₹.	1
Hexachlorocyclopentadiene	.;-	1
Hexachloroethane	<br **	1
Indeno(1,2,3-cd)pyrene	47	1
Isophorone		1
Naphthalene	:	1
Nitrobenzene		1
2-Nitrophenol	₹	1
4-Nitrophenol	Ċ	1
N-Nitrosodiphenylamıne		1
N-Nitroso-Di-N-propylamine	<_	1
Pentachlorophenol	4°	1
Phenanthrene	4	1
Phenol	: _	1
Pyrene	4	1
1, 2, 4-Trichlorobenzene	. *	1
2,4,6-Trichlorophenol		1
		*

mg/Kg = parts per million

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semivolatile Organics. Capillary Column Technique." Test methods for Evaluating Solid Waste. SW-846. November 1986.

> Scott Chandler, IHIT Laboratory Director

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REPORT: 18255

PAGE 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19740

SAMPLE DESCRIPTION: SOIL BORING #2 @ 8.0% FILL

# Volatile Organics in Soil 1

Parameter	CONCENTRATION(uq/Kq)
Chloromethane	< 10
Bromomethane	< 10
Vinyl Chloride	< 10
Chloroethane	
Methylene Chloride	< 10 < 10
Acetone	
Carbon Disulfide	
1,1-Dichlorethene	< 5
1,1-Dichlolorthane	○ 5 ○ 5
Trans-1,2-Dichloroethane	< 5
Chloroform	√ 5 √ 5
1,2-Dichloroethane	
2-Butanone	< 5
1,1,1-Trichloroethane	< 100
Carbon Tetrachloride	< 5
Vinyl Acetate	€ 5
Bromodichloromethane	< 50
1, 1, 2, 2, -Tetrachloroethane	< 5
1.2-Dichloroproprane	< 5
	< 5
Trans 1.3-Dichloropropene Trichloroethene	< 5
Dibromochloromethane	< 5
	<∴ 5
1,1,2-Trichloroethane	< 5
Benzene	< 5
Cis-1, 3-Dichloropropene	< 5
2-Chloroethyl Vinyl Ether	< 10
Bromoform	₹ 5
2-Hexanone	∜ 50
4-Methyl-2-Pentanone	₹ <b>5</b> 0

... .continued

REPORT. 18255

PAGE 2 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #. 19740

SAMPLE DESCRIPTION: SOIL BORING #2 @ 8.0% FILL

#### Volatile Organics in Soil 1

<u>Parameter</u>	CONCENTRAT (ug/Kg)	CONCENTRATION (ug/Kg)		
Tetrachloroethene	< 5			
Toluene	< 5			
Chlorobenzene	⊴ 5			
Ethyl Benzene	€ 5			
Styrene	√ 5			
Total Xylenes	< 5			

ug/Kg = Parts Fer Billion

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8240: "Gas Chromatography/Mass Spectrometry For Volatile Organics". Test Methods for the Evaluation of Solid Waste. EPA-SW846. November 1986.

REPORT: 19737 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19740

SAMPLE DESCRIPTION: SOIL BORING #2 @ 8.0% FILL

## Semi-Volatile Organics in Soil 1

<u>Parameter</u>	Concentration(mg/Kg)
Acenaphthene	< 1
Acenaphthylene	< 1
Anthracene	< 1
Benzidine	< 1
Benzo(a)anthracene	< 1
Benzo(b)fluoranthene	€ 1
Benzo(k)fluoranthene	< 1
Benzo(a)pyrene	< 1
Benzo(ghi)perylene	€ 1
Bis(2-chloroethyl)ether	< 1
Bis(2-chloroethoxy)methane	< 1
Bis(2-chloroisopropyl)ether	< 1
Bis(2-ethyhexyl)phthalate	< 1
4-Bromophenyl phenyl ether	< 1
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	€ 1
2-Chloronaphthalene	< 1
2-Chlorophenol	< 1
4-Chlorophenyl phenyl ether	€ 1
Chrysene	< 1
Di-n-butylphthalate	€ 1
Dibenzo(a, h)anthracene	÷ 1
1,2-Dichlorobenzene	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	€ 1
3,3'-Dichlorobenzidine	< 1
2,4-Dichlorophenol	< 1
Diethylphthalate	< 1
2,4-Dimethylphenol	< 1
Dimethyl phthalate	< 1
4,6-Dinitro-2-methylphenol	< 1
2,4-Dinitrophenol	< 1
2.4 Dinitrotoluene	< 1
2.6-Dinitrotoluene	$\stackrel{\sim}{<}$ $\stackrel{\stackrel{\sim}{1}}{}$
Di-n-octylphthalate	< 1
1,2-Diphenylhydrazine	$\stackrel{\sim}{<}$ 1
Fluoranthene	< 1
Fluorene	< 1
	<b>№</b> I

REPORT: 18255

2 DF 2

DATE: 13 SEPTEMBER 1989

TEC LAB ID#: 19740

Parameter	Concentration(mg/Kg)
Hexachlorobenzene	:1
Hexachlorobutadiene	₫ <b>1</b>
Hexachlorocyclopentadiene	1 1
Hexachloroethane	4 <b>1</b>
Indeno(1,2,3-cd)pyrene	√I 1
Isophorone	<□ 1
Naphthalene	< 1
Nitrobenzene	<. i
2-Nitrophenol	< 1
4-Nitrophenol	< 1
N-Nitrosodiphenylamine	4 <b>1</b>
N-Nitroso-Di-N-propylamine	47 1
Pentachlorophenol	< 1
Phenanthrene	€ <b>1</b>

Phenol Pyrene 1, 2, 4-Trichlorobenzene 2,4,6-Trichlorophenol

mg/Kg = parts per million

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semivolatile Organics. Capillary Column Technique " Test methods for Evaluating Solid Waste SW-845. November 1985.

> Scott Chandler, IHIT Laboratory Director

REPORT 18255

PAGE 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINAR'S SITE CHARACTERIZATION

TEC LAB ID #: 19741

SAMPLE DESCRIPTION: SOIL BORING #3 @ 4.0'; FILL

## Volatile Organics in Soil 1

<u>Parameter</u>	CONCENTRATION(uq/Kg)	
Chloromethane	<	10
Bromomethane	<	10
Vinyl Chloride		10
Chloroethane		10
Methylene Chloride		10
Acetone		100
Carbon Disulfide		5
1,1-Dichlorethene		5
1,1-Dichloroethane		5
Trans-1,2-Dichloroethane		5
Chloroform		5
1,2-Dichloroethane		
2-Butanone		100
1, 1, 1-Trichloroethane	Č	
Carbon Tetrachloride		5
Vinyl Acetate	į.	50
Bromodichloromethane		5
1, 1, 2, 2, -Tetrachloroethane		5
1,2-Dichloroproprane '		5
Trans 1.3-Dichloropropens		5
Trichloroethene	«Ţ	
Dibromochloromethane	Ċ	5
1,1,2-Trichloroethane	Č	
Benzene	4	
Cis-1,3-Dichloropropene	-	9
2-Chloroethyl Vinyl Ether	4.	•
Bromoform		5
2-Hexanone	- -	
4-Methyl-2-Pentanone		

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REPORT: 18255

PAGE 2 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT. WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT. PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19741

SAMPLE DESCRIPTION SOIL BORING #3 @ 4 0': FILL

## Volatile Organics in Soil 1

<u>Parameter</u>	CONCENTRATION (uq/Kq)	
Tetrachloroethene	<	5
Toluene	<	5
Chlorobenzene	< .	5
Ethyl Benzene	<	5
Styrene	<<	5
Total Xylenes	:[	5

uq/Kg = Parts Per Billion

A less than symbol (C) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8240: "Gas Chromatography/Mass Spectrometry For Volatile Organics". Test Methods for the Evaluation of Solid Waste. EPA-SW846. November 1986.

REPORT: 19737 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT. PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19741

SAMPLE DESCRIPTION: SOIL BORING #3 @ 4.0"; FILL

## Semi-Volatile Organics in Soil 1

<u>Parameter</u>	Concentration(mg/Kg)
Acenaphthene	< 1
Acenaphthylene	< 1
Anthracene	< 1
Benzidine	< 1
Benzo(a)anthracene	₹ 1
Benzo(b)fluoranthene	€ 1
Benzo(k)fluoranthene	₹ 1
Benzo(a)pyrene	$\tilde{\epsilon}$ $\tilde{i}$
Benzo(ghi)perylene	< 1
Bis(2-chloroethyl)ether	< 1
Bis(2-chloroethoxy)methane	€ 1
Bis(2-chloroisopropyl)ether	< 1
Bis(2-ethyhexyl)phthalate	$\stackrel{\circ}{\leftarrow}$ $\stackrel{\circ}{\bf i}$
4-Bromophenyl phenyl ether	< 1
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	< 1
2-Chloronaphthalene	< 1
2-Chlorophenol	< 1
4-Chlorophenyl phenyl ether	< 1
Chrysene	< 1
Di-n-butylphthalate	< 1
Dibenzo(a,h)anthracene	< 1
1,2-Dichlorobenzene	< 1
1,3-Dichlorobenzene	< 1
1,4-Dichlorobenzene	< 1
3.3'-Dichlorobenzidine	< 1
2,4-Dichlorophenol	< 1
Diethylphthalate	< 1
2.4-Dimethylphenol	< 1
Dimethyl phthalate	< 1
4.6-Dinitro-2-methylphenol	< 1
2,4-Dinitrophenol	< 1
2.4 Dinitrotoluene	< 1
2,6-Dinitrotoluene	< 1
Di-n-octylphthalate	< 1
1.2-Diphenylhydrazine	< 1
Fluoranthene	< i
Fluorene	<: 1

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2 OF 2

DATE: 13 SEPTEMBER 1989

TEC LAB ID#: 19741

#### <u>Parameter</u>

#### Concentration(mg/Kg)

Hexachlorobenzene		
Hexachlorobutadiene	 -	1
Hexachlorocyclopentadiene		1
Hexachloroethane		1
Indeno(1,2,3-cd)pyrene	-	1
Isophorone	-	1
Naphthalene	-	1
Nitrobenzene	<u> </u>	1
2-Nitrophenol	•	1
4-Nitrophenol	; <u>.</u>	1
N-Nitrosodiphenylamine		1
N-Nitroso-Di-N-propylamine		1
Pentachlorophenol		7
Phenanthrene	-	1
Pheno1	-	4
Purene	-	4
1, 2, 4-Trichlorobenzene	-	1
2, 4, 6-Trichlorophenol	-	1
···	-	1

mg/Kg = parts per million

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semivolatile Organics: Capillary Column Technique." Test methods for Evaluating Solid Waste. SW-84a. November 1986.

> Scott Chandler, IHIT Laboratory Director

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PAGE 1 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19742

SAMPLE DESCRIPTION: SOIL BORING #3 @ 10.0% FILL

## Volatile Organics in Soil 1

<u>Parameter</u>	CONCENTRATION(uq/Kq)
Chloromethane	< 10
Bromomethane	< 10
Vinyl Chloride	₹ 10
Chloroethane	< 10
Methylene Chloride	< 10
Acetone	< 100
Carbon Disulfide	< 5
1,1-Dichlorethene	< 5
1,1-Dichlorgethane	< 5
Trans-1,2-Dichloroethane	< 5
Chloroform	< 5
1.2-Dichloroethane	<. 5
2-Butanone	< 100
1,1,1-Trichloroethane	< 5
Carbon Tetrachloride	₹ 5
Vinyl Acetate	< 50
Bromodichloromethane	< 5
1,1,2,2,-Tetrachloroethane	₹ 5
1,2-Dichloroproprane	
Trans 1,3-Dichloropropens	₹ 5 ₹ 5 ₹ 5
Trichloroethene	×I 5
Dibromochloromethane	< 5
1,1,2-Trichloroethane	ć <u>5</u>
Benzene	₹ 5
Cis-1.3-Dichloropropene	< 5
2-Chloroethyl Vinyl Ether	₹ 10
Bromoform	. 5
2-Hexanone	< 50
4-Methyl-2-Pentanone	< 50

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T REPORT: 18255

PAGE 2 OF 2

DATE: 13 SEPTEMBER 1989

CLIENT: WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19742

SAMPLE DESCRIPTION SOIL DORING #3 @ 10.0% FILL

#### Volatila Organics in Soil 1

<u>Parameter</u>	CONCENTRATION(uq/Kq)	
Tetrachloroethene	<	5
Toluene	and the second second	5
Chlorobenzene	√1	5
Ethyl Benzene	<u> </u>	5
Styrene	:	5
Total Xylenes	<	5

ug/Kg = Parts Per Billion

A less than symbol (<) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8240: "Gas Chromatography/Mass Spectrometry For Volatile Organics". Test Methods for the Evaluation of Solid Waste. EPA-SW846. November 1986.

REPORT: 19737 1 OF 2

DATE 13 SEPTEMBER 1985

CLIENT: WOLVERINE GASHET & MANUFACTURING COMPANY

PROJECT PRELIMINARY SITE CHARACTERIZATION

TEC LAB ID #: 19742

SAMPLE DESCRIPTION SOIL BORING #3 @ 10.0' FILL

#### Semi-Volatile Organics in Soil 1

<u>Parameter</u>	Concentration(mg/Kg)
Acenaphthene	< 1
Acenaphthylene	₹ 1
Anthracene	i i
Benzidine	< 1
Benzo(a)anthracene	< 1
Benzo(b)fluoranthene	$\tilde{\epsilon}$ i
Benzo(k)fluoranthene	<u> </u>
Benzo(a)pyrene	< 1
Benzo(ghi)perylene	$\stackrel{\sim}{\sim}$ $\stackrel{\circ}{1}$
Bis(2-chloroethyl)ether	$\tilde{\epsilon}$ $\tilde{i}$
Bis(2-chloroethoxy)methane	$\tilde{\epsilon}$ $\hat{i}$
Bis(2-chloroisopropyl)ether	₹ 1
Bis(2-ethyhexyl)phthalate	< 1
4-Bromophenyl phenyl ether	C 1
Butyl benzyl phthalate	< 1
4-Chloro-3-methylphenol	< 1
2-Chloronaphthalene	$\stackrel{\sim}{\leftarrow}$ 1
2-Chlorophenol	
4-Chlorophenyl phenyl etner	< 1
Chrysene	< 1
Di-n-butylphthalate	< 1
Dibenzo(a,h)anthracene	$\stackrel{\sim}{<}$ $\stackrel{\circ}{1}$
1,2-Dichlorobenzene	< 1
1,3-Dichlorobenzene	$\tilde{\epsilon}$ i
1,4-Dichlorobenzene	< 1
3.3'-Dichlorobenzidine	< 1
2,4-Dichlorophenol	₹ <b>1</b>
Diethylphthalate	$\tilde{\epsilon}$ $\tilde{i}$
2,4-Dimethylphenol	
Dimethyl phthalate	$\tilde{\epsilon}$ $\dot{i}$
4,6-Dinitro-2-methylphenol	5 1
2,4-Dinitrophenol	~ 1 < 1
2,4 Dinitrotoluene	₹ 1
2, 6-Dinitrotoluene	< 1
Di-n-octylphthalate	< 1
1,2-Diphenglhydrazine	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Fluoranthene	₹ 1 ₹ 1
Fluorena	< 1
	\ 4

REPORT. 18255

2 OF 2

DATE: 13 SEPTEMBER 1989

TEC LAB ID# 19742

#### Parameter

#### Concentration(mg/Kg)

Hexachlorobenzene		1
Hexachlorobutadiene	-	4
	•-	7
Hexachlorocyclopentadiene	1]	1
Hexachloroethane	Ç	1
Indeno(1,2,3-cd)pyrene	40	1
Isophorone		1
Naphthalene	- (	i
Nitrobenzene	<u> </u>	1
2-Nitrophenol	₹,	1
4-Nitrophenol		1
N-Nitrosodiphenylamine	<,	1
N-Nitroso-Di-N-propylamine	· <u>-</u>	1
Pentachlorophenol	<."	1
Phenanthrene	4	1
Phenol		1
Pyrene	.**	1
1, 2, 4-Trichlorobenzene		1
2,4,6-Trichlorophenol	-,	1

mg/Kg = parts per million

A less than symbol ( $\leq$ ) indicates that the parameter was not detected at or above the stated limit of detection.

1 EPA Method 8270: "Gas Chromatography/Mass Spectrometry for Semi-volatile Organics: Capillary Calumn Technique." Test methods for Evaluating Solid Waste. SW-844. November 1984.

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Scott Chandler, IHIT Laboratory Director

REPORT. 18255

DATE: 14 SEPTEMBER 1989

CLIENT WOLVERINE GASKET & MANUFACTURING COMPANY

PROJECT: PRELIMINARY SITE CHARACTERIZATION

#### TOTAL PETROLEUM HYDROCARBONS 1

TEC LAB ID #

SAMPLE DESCRIPTION

RESULTS (mq/Kq)

19742

Soil Boring #3 @ 10.01. Fill

102

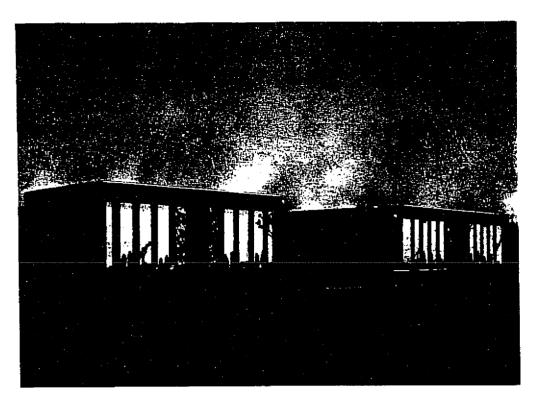
Results are reported on a dry weight basis. Moisture content is 13.9%

A less than symbol (I) indicates that the parameter was not detected at or above the stated limit of detection.

mg/Kg = Parts per million

1 EPA Method 418.1 "Petroleum Hydrocarbons: Total Recoverable". Methods for Chemical Analysis of Water and Wastes. EPA-600/4-79-020. March 1983.

Scott M. Chandler IHIT Laboratory Director





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# Phase I and II Environmental Site Assessment

EaglePicher Automotive Hillsdale Division 135 E. South Street Hillsdale, Michigan

APRIL 29, 2004



Infrastructure, buildings, environment, communications

Naun/Sharin

Dawn L. Sharvin Staff Scientist

Joseph A. Quinnan, PE, PG Principal Hydrogeologist/Engineer

Robert A. Ferree, CPG Vice President

# Phase I and II Environmental Site Assessment

EaglePicher Automotive Hillsdale Division 135 E. South Street Hillsdale, Michigan

Prepared for:

EaglePicher Incorporated 3402 East University Drive Phoenix, Arizona 85034

Prepared by: ARCADIS G&M of Michigan, LLC 25200 Telegraph Road Southfield Michigan 48034 Tel 248 936 8000 Fax 248 936 8111

Our Ref.: SF003152.0002.00002

Date: April 29, 2004

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## Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### **Executive Summary**

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) and Phase II Subsurface Investigation of the EaglePicher South Street Plant (subject property) located at 135 E. South Street in Hillsdale, Michigan. The Phase I ESA site reconnaissance was conducted on January 6, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records. The Phase II subsurface investigation was conducted on March 9 and 10, 2004 and was performed in accordance with ASTM Standard E1903-97, *Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

The subject property, approximately 4.4 acres in size, is situated on the northern side of E. South Street, west of Broad Street in Hillsdale, Michigan, in an area of mixed commercial, industrial, and residential development. The subject property, consisting of one industrial plant measuring approximately 64,000 square feet, is currently EaglePicher's Hillsdale Division's corporate office and also stores machinery, parts, and tools that are used at other EaglePicher facilities. Light machining (welding, soldering) and machine repair are also conducted at the subject property.

According to a February 22, 1996 *Closure Report* submitted by MWR, Inc., Lansing, Michigan, analytical results of one soil sample and one groundwater sample collected during the January 18, 1993 removal of a 2,000-gallon water-soluble coolant/waste oil underground storage tank (UST) confirmed a release to the subsurface had occurred at the subject property. The UST was formerly located along the western wall of the chip bay area. Unrestricted residential closure of the leaking underground storage tank (LUST) incident was awarded by the Michigan Department of Environmental Quality (MDEQ) on April 19, 1996.

ARCADIS assessment revealed the following recognized environmental conditions (REC) in connection with the current and historic operations conducted at the subject property:

 A reinforced concrete containment area (of unknown capacity) and below-grade sump are located in the chip bay area to collect coolant draining from the metal

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chip roll-off containers. The integrity of these below-grade structures could not be verified during the site reconnaissance.

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

- The following materials were found to contain asbestos at the subject property:
  - Straight aircell pipe insulation (men's rest room in southern hallway, Bay 5 area, test area, northeastern corner);
  - Gray transite panel (southwestern office above ceiling in southern hallway; southwestern sprinkler room above ceiling);
  - Braided white pipe wrap (Bay 3 open area northeastern corner; Bay 3 open area, northern corner; Bay 3 open area southwestern corner);
  - 9-inch x 9-inch cream floor tile and associated mastic (main lobby restroom southeastern corner);
  - Ceiling light heat shield (executive office in southern hallway off main lobby bathroom);
  - Rust speckled linoleum (telecommunication room in sales/marketing area northeastern and southwestern corners);
  - The fire door and frame were assumed to contain asbestos.
- The following paints at the subject property were found to be lead-based (0.5% or greater lead by weight):
  - Red paint (sprinkler system), and
  - Yellow paint (Bay 2 support beams and gas lines)

The visible, accessible asbestos-containing braided pipe wrap insulation in the Bay 3 area is severely damaged. Fibertec recommends this material be removed and, if necessary, replaced with a non-asbestos replacement product given condition of the material. Also, the slightly damaged straight pipe insulation in the men's rest room in the southern hallway should be repaired because of its damaged condition. Labels indicating 'Materials contain asbestos fibers. Avoid creating dust. Cancer and lung disease hazard.' should be applied on or near these areas to inform plant employees.

ARCADIS conducted a Phase II subsurface investigation to characterize soil and groundwater quality beneath the subject property with particular attention to the RECs that were identified by ARCADIS during the January 2004 Phase I ESA. Five soil borings (SSG-1 through SSG-5) were installed on March 9 and 10, 2004 at the subject property; three soil borings (SSG-1, SSG-2, and SSG-5) were installed along the

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property boundary to determine any environmental impacts from off-site sources, and two soil borings (SSG-3 and SSG-4) were installed in the vicinity of the chip bay area. One soil sample was collected for laboratory analysis from each of the soil borings installed to address the January 2004 Phase I ESA RECs, and one groundwater sample was collected from each of the soil borings installed along the property boundary. A comparison of the analytical results was made to the residential criteria established in Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, as amended, Section R 299.5744, dated December 21, 2002 (Part 201). The analytical results are summarized below.

#### **Soil Quality**

- Various volatile organic compounds (VOCs) (1,1,2,2-tetrachloroethane [TCA]; 1,2,4-trimethylbenzene [TMB]; 1,3,5-TMB; n-butylbenzene; sec-butylbenzene; tert-butylbenzene; ethylbenzene; isopropylbenzene; n-propylbenzene; and xylenes) were detected in two soil borings (SSG-3 and SSG-4) installed at the subject property. Concentrations of 1,2,4-TMB; 1,3,5-TMB; n-butylbenzene; sec-butylbenzene; ethylbenzene; n-propylbenzene; and xylenes exceed the Michigan Department of Environmental Quality (MDEQ) Part 201 residential cleanup criteria (Drinking Water [DW] Protection and Groundwater/Surface-Water Interface [GSI] Protection).
- Naphthalene, 2-methylnaphthalene, fluorene and phenanthrene were the only
  polynuclear aromatic hydrocarbons (PAHs) detected at the subject property.
   Naphthalene in both borings exceeds the MDEQ Part 201 residential DW
   Protection and GSI Protection criteria.
- Various metals (arsenic, barium, cadmium, chromium, copper, lead, selenium, and zinc) were detected at the subject property. Selenium in Soil Boring SSG-3 (510 micrograms per kilogram [μg/kg]) exceeds the MDEQ Part 201 GSI Protection criterion. However, this concentration does not exceed the Michigan Statewide Default Background Level for selenium of 4,000 μg/kg. Chromium in Soil Boring SSG-4 (130,000 μg/kg) exceeds MDEQ Part 201 DW Protection and GSI Protection criteria.

#### **Groundwater Quality**

Various VOCs (1,2,4-TMB; 1,3,5-TMB; chlorobenzene; ethylbenzene; isopropylbenzene; n-butylbenzene; sec-butylbenzene; tert-butylbenzene; and xylenes) were detected above the laboratory detection limits in the samples

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collected within the vicinity of the chip bay area (SSG-3 and SSG-4) of the subject property. However, only 1,2,4-TMB, 1,3,5-TMB;[ and xylenes exceed the MDEQ Part 201 generic residential criteria (DW and GSI).

- Naphthalene was the only PAH detected in the groundwater samples collected at the subject property and was only detected in Soil Borings SSG-3 (24 micrograms per liter [μg/L]) and SSG-4 (50 μg/L). Each of these concentrations exceeds the MDEQ Part 201 GSI criterion of 13 μg/L.
- Arsenic, barium, chromium, and zinc were detected in some or all of the groundwater samples collected at the subject property. However, none of the concentrations exceed the MDEQ Part 201 generic residential criteria.

The soil and groundwater analytical results from samples collected during the Phase II investigation indicate the subject property meets the requirements according to the MDEQ to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the NREPA, PA 451 of 1994, as amended) for soil and groundwater impacts. The extent of these impacts appears to be limited to the area surrounding the chip bay. However, it is unclear whether these impacts are the result of the failure of the sump in the chip bay area or are the residuals of the 1993 leaking underground storage tank (LUST) incident at the subject property because Soil Boring SSG-3 was installed adjacent to the location of the former 2,000-gallon underground storage tank. The 1993 LUST incident received unrestricted residential closure from the MDEQ; however, current analytical results (typical petroleum constituents) show exceedances of the MDEQ residential cleanup criteria.

The current soil analytical results show detections of VOCs and PAHs that were either not previously detected (ethylbenzene, xylenes, fluorene, naphthalene) or have increased (phenanthrene) since the 1993 LUST cleanup investigation. However, the depths that were sampled during the 1993 investigation (6 to 6.5 feet) are not the same as the depths that were sampled during the current investigation (range from 7.5 to 10 feet). In addition, other VOCs, PAHs, and metals were detected in soil and groundwater samples collected during the ARCADIS Phase II investigation that were not analyzed for in 1993, so it is impossible to determine concentrations trends of these constituents.

Elevated detection limits due to sample matrix interference occurred during the VOC and PAH analysis of soil samples SSG-3 and SSG-4. Therefore, numerous constituents that were not detected above the laboratory detection during the current investigation

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may actually have low-level detections, and accordingly, an accurate determination of concentrations trends of these constituents cannot be made.

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## Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### 1. Introduction

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) and Phase II Subsurface Investigation of the EaglePicher facility (subject property) located at 135 E. South Street in Hillsdale, Michigan (see Figure 1). The Phase I ESA site reconnaissance was conducted on January 6, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records. The Phase II subsurface investigation was conducted on March 9 and 10, 2004 and was performed in accordance with ASTM Standard E1903-97, *Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

#### 1.1 Purpose

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

#### 1.2 Detailed Scope of Services

The Scope of Services for this ESA is set forth in a letter from ARCADIS to Mr. Dave Krall of EaglePicher dated November 25, 2003 and was conducted pursuant to a Master Services Agreement between ARCADIS and EaglePicher Automotive. This Scope of Services calls for the ESA to be conducted in accordance with ASTM Standard E1527-00, *Practice for Environmental Site Assessments* and to comprise the following specific elements:

- Regulatory database search;
- Site reconnaissance, review of facility records, and interview of local plant personnel;
- Review for federal, state, and local environmental liens against the property;
- Provide a qualitative review of potential asbestos-containing materials (ACMs) and lead-based paint (LBP); and

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 Ownership, polychlorinated biphenyl (PCB) status, and condition of electrical transformers, capacitors, switches, etc.

The purpose of the ESA is to investigate conditions at the facility and identify any Recognized Environmental Conditions (RECs). A REC, as defined in the ASTM standard, is as follows:

"The presence or likely presence of any hazardous substances or petroleum products on property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

As part of the Phase I ESA, ARCADIS reviewed readily available regulatory information to assess the possible risk for environmental liabilities from regulatory action, hazardous materials spills, or documented hazardous waste disposal at the subject property or nearby properties (i.e., properties located within ASTM-specified search distances from the subject property). Records of compliance with applicable environmental regulations and permits from the Michigan Department of Environmental Quality (MDEQ), City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency were reviewed. These searches were conducted via the Internet and telephone calls.

The site inspection included an assessment of the property with the objectives of identifying releases, past releases, or material threat of releases of hazardous substances or petroleum products (or evidence of such) at the site. This physical inspection included, if applicable, but was not limited to, the following items:

- Indications of spills or releases;
- Evidence of on-site disposal practices;
- Chemical, solid waste, and other environmental management practices;

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- Current or past usage of underground storage tanks (USTs) and aboveground storage tanks (ASTs);
- Adjacent land uses;
- Identification of physiographic features;
- Wastewater treatment;
- Evidence of standing surface water;
- Sources of drinking water;
- Visual indications of equipment that may contain PCBs, if applicable; and
- Potential sources of contamination or other environmental concerns.

ARCADIS also performed a limited, visual reconnaissance for suspected ACMs by evaluating only readily accessible materials limited to general observations made during the site reconnaissance. Material that was hidden, such as behind walls or ceilings, was not evaluated. The limited visual reconnaissance was not performed in accordance with the United States Environmental Protection Agency (USEPA) regulations implementing the Asbestos Hazard Emergency Response Act (40 Code of Federal Regulations [CFR] 763.80 et seq.) or with the U.S. Occupational Safety and Health Administration (OSHA) *General Industry Standard: Occupational Exposure to Asbestos* (29 CFR 1910.1001).

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec Industrial Hygiene Services (Fibertec) of Holt, Michigan at the subject property on March 8 and 9, 2004. Fibertec's results are discussed in Section 5.8.

#### 1.3 Significant Assumptions

ARCADIS has assumed that the information sources utilized for this assessment provide complete and accurate information. Evaluations presented in this report are based exclusively on information provided by EaglePicher, the site representative, local agency personnel, available public records, and observations made during the site visit.

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EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### 1.4 Limitations and Exceptions

This Phase I ESA is limited in nature and should not be construed to be a characterization of environmental regulatory compliance or of conditions above or below grade. ARCADIS performed the ESA by focusing on hazardous materials and petroleum usage, storage, and disposal areas.

The Phase I evaluations presented in this limited environmental assessment are based on information provided by EaglePicher personnel, available site records, state file records, readily accessible historical documents, and observations made during the site reconnaissance. In preparing this report, ARCADIS has accepted as true the information provided by EaglePicher personnel on current and historical operations of the facility. ARCADIS warrants that the services performed were conducted in a competent and professional manner in accordance with sound consulting practices and procedures. ARCADIS cannot warrant the actual site conditions described in this report beyond matters amenable to visual confirmation within the limits of this site assessment program. ARCADIS makes no express or implied representation or warranty that this document or the information contained herein is fit for a particular purpose, nor does ARCADIS make any representation or warranty regarding the accuracy or reliability of information or documents provided by other parties that are contained or relied on herein. This document and the information, findings, opinions, and recommendations herein have been prepared for the benefit only of EaglePicher, and no third party is intended as a beneficiary or intended to rely on this document or the information herein unless otherwise expressly stated in writing by ARCADIS.

#### 1.5 Special Terms and Conditions

No special terms and conditions were imposed on this ESA.

#### 1.6 Reliance

There are no third party rights or benefits conferred under this report. Use of this report is strictly limited to EaglePicher, the only party to whom ARCADIS intends to confer any rights. Any use of the contents of this report by any third party is at the sole risk of that party.

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## Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### 1.7 Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work dated November 25, 2003.

In addition, a comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec Industrial Hygiene Services (Fibertec) of Holt, Michigan at the subject property on March 8 and 9, 2004. Fibertec's results are discussed in Section 5.8.

#### 2. Site Description

The information below was obtained through an inspection of the subject property conducted by Ms. Dawn Sharvin of ARCADIS on January 6, 2004. Photographs taken by ARCADIS during the site walk-through of the subject property are presented in Appendix A.

#### 2.1 Location and Legal Description

The subject property, approximately 4.4 acres in size, is situated on the northern side of E. South Street, west of Broad Street in Hillsdale, Michigan (see Figure 1). The city of Hillsdale is located in Hillsdale County in southern Michigan. The subject property is located in Section 26, Township 6S, Range 03W at latitude 41°54′57.2"(north) and longitude 84°37′35.0" (west).

According to the City of Hillsdale Assessor's Office, the parcel number for the subject property is 426-306-26, and the property is zoned I-1; light industrial usage. The legal description is listed below:

A part of the southwest one-quarter, Section 26, Town 6 South, Range 3 West, City of Hillsdale, (unplatted) describe as follows:

Commencing at a point where the east line of Broad Street intersects the centerline of South Street and running thence north 69°38"east, 481.2 feet; thence north 80°0' east, 178.0 feet; thence north 10° west, 24.75 feet to the point of beginning, which point is in the north line of South Street; thence north 10° west, 343.5 feet; thence north 69°06' east to the St. Joseph River; thence southeasterly along the St. Joseph River to a point 150 feet from and perpendicular to the northerly line of South Street; thence south 80° west, 50 feet

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more or less; thence south  $10^{\circ}$  east, 150 feet to the northerly line of South Street; thence south  $80^{\circ}$  west along South Street, 15.00 feet to the point of beginning.

Subject to the conditions, however, that no building of any nature or description be built or maintained on the southerly 150 feet of the above described lands; and further the grantor has the right to the use of the southerly 150 feet of the above described lands for the purpose of maintaining and repairing the pumping station and pipes now on lands lying easterly thereof. Further, that if the grantor uses said southerly 150 feet to maintain or repair the pumping station and pipes on its lands easterly thereof, then such damage as is occasioned to said southerly 150 feet will be repaired at the sole cost of the grantor.

#### 2.2 Site Vicinity General Characteristics

The subject property is located in an area of mixed commercial, industrial, and residential development.

#### 2.3 Current Use of the Subject Property

The subject property is currently EaglePicher's Hillsdale Division's corporate office and also stores machinery, parts, and tools that are used at the other EaglePicher facilities. Light machining (welding, soldering) and machine repair are also conducted at the subject property.

#### 2.4 Historic Use of the Subject Property

According to Ms. Stacy Greene, EaglePicher Environmental Health and Safety (EHS) Manager, steel, aluminum, and cast iron automotive parts were manufactured at the subject property since the building's construction in the 1940s until manufacturing operations were ceased in approximately 2000. Prior to the 1940s, the subject property was an undeveloped grass lot.

#### 2.5 Description of Structures

The subject property currently consists of one industrial plant measuring approximately 64,000 square feet. The building, originally constructed in the 1940s, is one story in height and consists of a former manufacturing area, warehouse storage, and offices. The main office area is located in the southern half of the building. However, smaller offices are also located throughout the manufacturing area. The building is constructed

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EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

with a concrete slab-on-grade foundation, steel column and beam superstructure, flat wood roofs, and steel sloped roofs. Building exterior finishes included paint, decorative concrete masonry units, wood, and sheet metal siding. Additional office, manufacturing, and warehouse space was added to the original building at various times since the original building construction. Figure 2 presents the site layout of the subject property.

According to the City of Hillsdale Building Department, the following building permits were obtained for the subject property:

- Permit No. 8-836, dated January 16, 1979, for the construction of manufacturing and office areas.
- Permit No. 8-883, dated July 26, 1979, for the construction of a warehouse addition.
- Permit No. 9-472, dated May 23, 1985, for the construction of a storage area/chip bin.
- Permit No. 90-099, dated August 23, 1990, for the demolition of a storage building.
- Permit No. 94-006, dated January 31, 1994, for the renovations.
- Permit No. 90-116, dated September 18, 1990, for the construction of an office addition
- Permit No. P97-158, dated June 23, 1997, for the construction of a 25-foot tall cooling tower.

A grade-level driveway on the eastern side of the building serves the building. Concrete and asphalt grade parking areas are present on the northern and eastern sides of the building. Vegetated, grass areas are present along the western side of the building. Truck-loading docks are on the northern and eastern sides of the building.

#### 2.6 Current Uses of the Adjoining Properties

The subject property is located in an area of mixed commercial, industrial, and residential development. An unnamed creek adjoins the subject property to the west,

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and the St. Joseph's River adjoins the subject property to the east. Adjacent to the creek and the St. Joseph's River are residential properties. Commercial properties are located farther west and east of the subject property. The Hillsdale County Fairgrounds is immediately south of the subject property across E. South Street. Mill Pond (formed on a branch of the St. Joseph River) and Baw Beese Lake are to the southeast of the subject property.

#### 3. User Provided Information

#### 3.1 Title Records

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

#### 3.2 Environmental Liens

No agreements with the any third party or the regulatory agencies having jurisdiction of the site and concerning EaglePicher's environmental commitments were provided by EaglePicher nor were any discovered by ARCADIS during the Phase I ESA site reconnaissance activities.

According to the Hillsdale County Health Department, no environmental liens exist on the subject property.

#### 3.3 Specialized Knowledge

ARCADIS does not have any specialized knowledge of any consent orders or other environmental enforcement actions against EaglePicher at the subject property.

#### 3.4 Valuation Reduction for Environmental Issues

EaglePicher indicates that they are unaware of any valuation reduction of the subject site resulting from any current or historical environmental issues.

#### 3.5 Owner, Property Manager, and Occupant Information

The subject property is currently owned and operated by EaglePicher. Prior to EaglePicher, the subject property was owned and operated by Hillsdale Tool & Manufacturing Company who was subsequently purchased by EaglePicher.

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EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### 3.6 Reason for Performing Phase I Environmental Site Assessment

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

#### 4. Records Review

To obtain a historical perspective of the subject property, and the regulatory status of the subject property and neighboring facilities, the following resources were ordered and/or reviewed:

- State and federal regulatory database records,
- Fire insurance maps,
- Historical aerial photographs, and
- Historic topographic maps.

#### 4.1 State and Federal Regulatory Database Records

#### 4.1.1 Environmental Record Sources

ARCADIS retained Environmental Data Resources, Inc. (EDR) of Southport, Connecticut to perform an ASTM Phase I database search of state and federal environmental records. A regulatory database review was performed to obtain information about the use of the subject property, surrounding land use, and the potential for off-site environmental impacts to the subject property. The following federal and state databases were searched.

Federal Databases (Standard):

- National Priority List (NPL)
- Proposed NPL
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/No Further Remedial Action Planned (NFRAP)

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- Corrective Action Reports (CORRACTS)
- Resource Conservation and Recovery Information System (RCRIS)-Transportation, Storage, Disposal (TSD)
- RCRIS Large Quantity Generator (LQG)
- RCRIS Small Quantity Generator (SQG)
- Emergency Response Notification System (ERNS)

State of Michigan Databases (Standard):

- State Hazardous Waste Site (SHWS)
- State Landfill (LF)
- Leaking UST
- USTs
- Baseline Environmental Assessment (BEA)
- Historic LF
- USTs on Indian Land

ARCADIS reviewed federal and state environmental regulatory agency databases in addition to the ones required by the ASTM Standard E 1527-00 as provided by EDR. The report produced by EDR is included as Appendix B. The following databases were searched:

Federal Databases (Supplemental):

- Superfund (CERCLA) Consent Decrees (CONSENT)
- Records of Decision (ROD)
- National Priority List Deletions (Delisted NPL)

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- Facility Index System/ Facility Identification Initiative Program Summary Report (FINDS)
- Hazardous Materials Information Reporting System (HMRIS)
- Material Licensing Tracking System (MLTS)
- Mines Master Index File (MINES)
- Federal Superfund Liens (NPL Liens)
- PCB Activity Database System (PADS)
- US Brownfields (a listed of Brownfields sites)
- Department of Defense Sites (DOD)
- RCRA Administrative Action Tracking System (RAATS)
- Toxic Chemical Release Inventory System (TCRIS)
- Toxic Substances Control Act (TSCA)
- Section 7 Tracking Systems (SSTS)
- Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/TSCA Tracking System (FTTS)

State of Michigan Databases (Supplemental):

- ASTs
- SHWS Deletions (DEL SHWS)
- Pollution Emergency Alerting System (PEAS)

The objective of the regulatory database review is to identify those sites that use, store, treat, generate, dispose of, or otherwise handle hazardous materials, or have been listed

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for known or suspected releases of hazardous substances. A copy of the EDR report is included as Appendix B.

4.1.1.1 Subject Property Findings

The subject property was listed in the following databases:

- CERCLIS-NFRAP: According to the information contained within the EDR report, on October 28, 1985, the USEPA was notified of possible releases of hazardous substances at the subject property (Discovery Phase). A Preliminary Assessment was completed on January 3, 1986. A Site Inspection was completed on October 21, 1987, and the site was archived on the same day.
- RCRIS SQG: The subject property, listed as Eagle-Picher Industries Inc., was listed on this database as a small quantity generator (MID005050109) with no violations reported.
- FINDS: This database lists 'other pertinent environmental activity has been identified at the site'. This activity includes being listed on the AIRS/AIRS Facility Subdivision, National Compliance Database (NCDB), RCRA Information System (RCRA INFO), and TRIS.
- LUST: A LUST incident occurred at the subject property on February 8, 1993.
   The spill incident was closed by the MDEQ on February 28, 1996. No additional information was included in the EDR report.
- UST: According to information contained within the EDR report, one 2,000-gallon UST containing water-soluble coolant was installed at the subject property on January 18, 1978 and was later removed from the ground (date not specified).
- FTTPS INSP: An FTTS Section 6 PCB State inspection was conducted at the subject property on September 15, 1989. No violations were recorded during the inspection.

Based on ARCADIS' review of the information contained within the EDR report, none of the databases that the subject property is listed on constitute a REC because the CERCLIS incident has been archived by the USEPA; no RCRIS violations have been recorded against the subject property; the LUST incident has been closed by the

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MDEQ; the UST has been removed from the ground at the subject property; and no violations were recorded during the September 1989 FTTPS inspection.

#### 4.1.1.2 Surrounding Properties

The following properties were identified on the databases found in the EDR report. Additional information regarding these sites can be found in the EDR report in Appendix B.

- Essex Group, Inc, 170 E. South Street, Hillsdale, Michigan: RCRIS-SQG, FINDS
- Alamo, 170 E. South Street, Hillsdale, Michigan: UST
- Ritter Self Serve, 240 S. Broad Street, Hillsdale, Michigan: UST, LUST
- Valentine Union 76, 120 S. Broad Street, Hillsdale, Michigan: RCRIS SQG, FINDS
- Worts Main Gate, 120 S. Broad Street, Hillsdale, Michigan: UST, LUST
- Hillsdale Community Health, 168 S. Howell Street, Hillsdale, Michigan: LUST, UST
- 30 S. Howell Street, Hillsdale, Michigan: BEA
- Marathon Unit 2559, 42 E. Waldron & Howell Street, Hillsdale, Michigan: UST, LUST
- 52 Willow Street, Hillsdale, Michigan: BEA
- Daisy Parts Inc., 56 Willow Street, Hillsdale, Michigan: RCRIS SQG, FINDS, UST, LUST
- Hillsdale County Road Commission, 35 Ferris Street, Hillsdale, Michigan: RCRIS SQG, FINDS, UST, LUST
- 38 Ferris Street, Hillsdale, Michigan: BEA
- 90 East Carleton Road, Hillsdale Township, Michigan: BEA

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- Contour Plastics, 29 Superior Street, Hillsdale, Michigan: SHWS
- Jonesville Citgo, Inc., 420 South M-99, Jonesville, Michigan: UST, LUST
- Former Licensed City LF, Waterworks Avenue/Griswold Street, Hillsdale, Michigan: SHWS
- Hillsdale Railyard, Monroe and Hillsdale Streets, Hillsdale, Michigan: SHWS
- Hillsdale Gas Co., West of River Street, South of Park Street, Hillsdale, Michigan: Coal Gas
- Hillsdale Iron & Metal-MDEQ, 80 Glendale Avenue, Hillsdale, Michigan: RCRIS SQG, FINDS, SHWS, BEA

Based on ARCADIS' review of the information contained within the EDR report, the Ritter Self Serve site, located upgradient (the assumed groundwater flow direction is to the east toward the St. Joseph River) of the subject property at 240 S. Broad Street, Hillsdale, Michigan, and Worts Main Gate, located upgradient of the subject property at 120 S. Broad Street, Hillsdale, Michigan may pose an environmental risk to the subject property because of their upgradient locations and because both spill incidents remain 'open' according to the MDEO.

#### 4.2 Freedom of Information Act Request

ARCADIS performed a Freedom of Information Act (FOIA) request of the MDEQ files (if any) that pertain to the LUST incidents at the Worts Main Gate, located at 120 S. Broad Street, Hillsdale Michigan and the Ritter Self-Serve site, located at 240 S. Broad Street, Hillsdale, Michigan. Information obtained from the MDEQ is summarized below:

- 4.2.1 Wort's Main Gate, 120 S. Broad Street, Hillsdale, Michigan
- The EDR report incorrectly mapped the location. The site actually is located southwest of the subject property.
- Seven USTs (gasoline, kerosene, waste oil, fuel oil) were formerly located at the site. Poor tank conditions and groundwater and soil impacts were observed during tank removals; and a LUST incident was reported to the MDEQ. Analytical results of soil samples collected from the base of the tank excavations indicate detections

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of benzene, toluene, ethylbenzene, xylenes (BTEX), polynuclear aromatic hydrocarbons (PAHs), and lead. Similar detections have been observed for groundwater samples.

ARCADIS' review of the MDEQ files on this site has indicated that this site does not pose an environmental threat to the subject property based on its sidegradient location.

- 4.2.2 Ritter Self Serve, 240 S. Broad Street, Hillsdale, Michigan
- Limited information regarding this site was obtained from the MDEO files.
- An unknown number of USTs were excavated from the site sometime prior to April 1992. Excavated soils were stockpiled at a location on Griswold Street. Analytical results of soil samples collected from the stockpiled soils indicated detections of lead up to 120 parts per million (ppm).
- No additional information regarding this site was obtained from the MDEQ files.

ARCADIS' review of the MDEQ files on this site has indicated that this site does not pose an environmental threat to the subject property. In addition, analytical results of soil and groundwater samples collected during the ARCADIS Phase II ESA (Section 9.1) do not indicate the presence of subsurface impacts from off-site sources.

#### 4.3 Physical Setting Sources

#### 4.3.1 Topography

A review of the 7.5-minute United States Geological Survey (USGS) topographic quadrangle map for Hillsdale, Michigan (1959; photorevised 1979) indicates that the ground surface in the immediate vicinity and surrounding area of the subject property gently slopes eastward toward the St. Joseph River. The subject property is located at a surface elevation between 1,100 and 1,150 feet above mean sea level (ft amsl).

#### 4.3.2 Geology

According to W.R. Farrand and D.L. Bell, the unconsolidated deposits underlying the subject property generally include pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to cobbles. It is a mixed lithology of sedimentary, igneous, and metamorphic rocks that are well- to poorly sorted, well-stratified, and crossbedded in places. The deposits occur as fluvial terraces along

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present and abandoned drainage ways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. It includes narrow belts of Holocene alluvium inset below outwash terraces, alongside present streams, but is too limited to map separately. The unconsolidated deposits vary in thicknesses of 3 to 65 feet (Farrand 1984).

Underlying the unconsolidated glacial deposits is the Mississippian-aged Coldwater Shale and Limestone of the Osagean and Kinderhookian Series and is typically encountered at depths of 100 to 200 feet below ground surface (Western Michigan University 1981).

#### 4.3.3 Groundwater

Based on regional hydrogeologic information, overall groundwater flow is inferred to be to the east/northeast toward the St. Joseph's River, Mill Pond, and Baw Beese Lake. However, regional discharge patterns may be greatly influenced by local man-made obstructions and diversions (e.g., buildings, roads, sewer systems, utility service lines).

#### 4.3.4 Watershed

Numerous surface water bodies surround the subject property. An unnamed creek adjoins the subject property to the west, and the St. Joseph River adjoins the subject property to the east. Mill Pond, part of the St. Joseph River, is located approximately 500 feet southeast of the subject property. Baw Beese Lake is located approximately 4,500 feet southeast of the subject property The St. Joseph River drainage system flows to the north-northwest and eventually drains to Lake Michigan.

#### 4.4 Historical Use Information on the Property

#### 4.4.1 Fire Insurance Maps

Sanborn<sup>TM</sup> Fire Insurance Maps were not available for the subject property.

#### 4.4.2 Aerial Photographs

ARCADIS reviewed historical aerial photographs to depict the visual history of the subject property and adjacent properties. Aerial photographs for 1938, 1955, 1969, 1978, 1983, 1997, and 1998 were reviewed (see Appendix C).

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The 1938 aerial photograph depicts the subject property and adjacent properties as undeveloped grass and forested lots. Earthmoving activities are visible on the property to the west; residential homes are farther west of the subject property; and the Hillsdale County Fairgrounds track is present to the south of the subject property.

The 1955 aerial photograph depicts the subject property with the building and associated driveway and limited parking area constructed. The adjacent and surrounding properties generally appear as they did in the 1938 photograph.

The 1969 aerial photograph depicts the subject property with additional building and parking space constructed to the north and west of the original building. Overall, additional development (of unknown type) has occurred on the surrounding properties to the north and west.

The 1978 aerial photograph depicts the subject property as it appeared in the 1969 photograph. However, additional warehouse space is constructed to the west of the original building.

The 1983, 1997, and 1998 aerial photographs depict the subject property as it appears today. Additional industrial development has occurred on the surrounding properties to the west and south.

No RECs were identified in the review of historical aerial photographs.

### 4.4.3 Historic Topographic Maps

ARCADIS reviewed historic topographic maps of the subject property and adjacent properties dated 1959, photorevised 1979, and 1990 (see Appendix D). The subject property is depicted as undeveloped on the 1950 and 1979 maps, and the scale of the 1990 map is too small to discern any detail about the subject property. The Hillsdale County Fairgrounds are present to the south of the subject property on the 1950 and 1979 maps.

No RECs were identified in the review of historical topographic maps.

#### 4.4.4 Previous Environmental Investigations

According to a February 22, 1996 *Closure Report* submitted by MWR, Inc., Lansing, Michigan, analytical results of one soil sample and one groundwater sample collected

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during the January 18, 1993 removal of a 2,000-gallon water-soluble coolant/waste oil UST confirmed a release to the subsurface had occurred at the subject property. The UST was formerly located along the western wall of the chip bay area. The release was confirmed on February 8, 1993, and the LUST incident was assigned LUST ID C-0239-93. Remedial investigation and hydrogeologic activities, conducted in June 1993, consisted of the collection of four sidewall samples, four background soil samples (for cadmium, chromium, and lead metals analysis), and groundwater samples from two temporary monitoring wells. The four sidewall samples had concentrations of metals that were below the mean concentration of the background samples. Other constituents detected in the soil samples included tetrachloroethylene (PCE): 1,1,2,2-tetrachloroethane (1,1,2,2-TCA); PAHs; PCBs; and metals (cadmium, chromium, and lead). Benzene in the initial June 1993 round of groundwater sampling exceeded the former Michigan Type B closure criteria of 1 microgram per liter (µg/L). Based on the results of this investigation, three additional monitoring wells were installed at the site to determine the extent of groundwater impacts. Groundwater samples were collected in May 1994, September 1994, and May 1995. Analytical results indicated detections of trans-1,2-dichloroethylene (DCE); benzene; ethylbenzene; naphthalene; xylenes; 1,1,2,2-TCA; PCBs; and cadmium in groundwater; however, all groundwater concentrations were below Type B criteria. According to MWR, the site met Tier I criteria without remediation, and closure is based on a reevaluation of the existing data under new (Part 201) guidelines.

Unrestricted residential closure of the LUST incident was awarded by the MDEQ on April 19, 1996.

#### 5. Site Reconnaissance

#### 5.1 Methodologies and Limiting Conditions

On January 6, 2004, Ms. Sharvin of ARCADIS conducted the site walk-through of the subject property. Ms. Greene and Mr. Dave Wright, Machine Rebuild Engineer, of EaglePicher accompanied Ms. Sharvin on the site reconnaissance. There was no precipitation during the site reconnaissance; however, the grounds were covered with snow.

ARCADIS retained Fibertec to conduct ACM and LBP survey of the property.

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#### 5.2 General Site Setting

The subject property, approximately 4.4 acres in size, currently consists of one industrial plant measuring approximately 64,000 square feet, paved asphalt and concrete parking areas, and landscaped grassy areas. The subject property is located in an area of mixed commercial, industrial, and residential development.

An unnamed creek adjoins the subject property to the west, and the St. Joseph's River adjoins the subject property to the east. Adjacent to the creek and the St. Joseph's River are residential properties. Commercial properties are located farther west and east of the subject property. The Hillsdale County Fairgrounds is immediately south of the subject property across E. South Street. Mill Pond and Baw Beese Lake are to the southeast of the subject property.

#### 5.3 Observations

The following are the general observations noted during the site reconnaissance of the subject property. Photographs taken by ARCADIS during the site walk-through of the subject property are presented in Appendix A.

#### 5.3.1 Inside Building

- The subject property is currently EaglePicher's Hillsdale Division's corporate office and also stores machinery, parts, and tools that are used at the other EaglePicher facilities. Light machining (welding, soldering) and machine repair are also conducted at the subject property. No machining operations are currently conducted at the subject property.
- The main office area is located in the southern half of the building. The offices consist of drop ceilings, plaster walls, and carpet.
- The northern half of the building consists of warehouse storage and former manufacturing areas that are constructed with a concrete slab-on-grade foundation, steel column and beam superstructure, sheet metal siding and wood walls, flat wood roofs, and steel sloped roofs.
- A tool crib area is located in the southern portion of the former manufacturing area. This area contained small metal working equipment such as mills, drills, lathes, welds, and solders.

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A chip bay room is located along the northern portion of the building, just west of the former main manufacturing room (see Figure 2). Two bay doors are along the northern wall where roll-off containers that contained scrap metal chips generated from the machining processes were formerly located. The floor in the chip bay room is sloped away from the outer bay door.

A reinforced concrete containment area (of unknown capacity) was also observed in the chip bay room. This containment area was formerly used for dumping dirty mop water, coolant, and oil from minor spills within the building. When this containment area was full, it was pumped to an AST where it was stored while awaiting off-site disposal.

- A nonhazardous waste storage area is located in the southern portion of the chip bay room. Approximately 20 55-gallon drums that were either empty or contained various oils (lubricating and hydraulic) were observed in this area stored on the floor. One 2,200-gallon waste coolant AST, one 2,200-gallon waste oil AST, and one 4,000-gallon virgin coolant AST were also observed in this area. Staining was observed in the vicinity of the drums and ASTs. Secondary containment in the form of concrete curbing surrounds this storage area.
- Floor drains were not observed anywhere inside the building.
- Compressed gas cylinders are stored in the southwestern corner of the former manufacturing area. The cylinders, used for welding, are stored in an upright position and were secured with metal chains.
- An air compressor room is located south of the chip bay room, along the eastern-most outside wall of the former manufacturing area. The compressor room is equipped with air circulating fans (on the outside wall) and is kept closed.
- Locker rooms, rest rooms, and a lunchroom are located along the western wall of the former manufacturing area.
- A shipping and receiving area and finished product storage area is located in the northern portion of the warehouse storage building.

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#### 5.3.2 Outside Building

- Thirteen wet-type, pad-mounted transformers were observed outside the facility, along the western side of the building. Six are located immediately south of the nonhazardous storage room; three are located north of the offices; and four are located immediately west of the offices, just off of E. South Street. All transformers were labeled as non-PCB containing. According to plant employees, the transformers are owned by EaglePicher.
- A trash compactor was observed outdoors, south of the chip bay room, between the former manufacturing area and the warehouse storage area.
- Truck loading dock areas are located along the northern and western walls of the facility. There were no drains present in these areas.
- A grade-level driveway serves the building along the eastern side of the building.
   Concrete and asphalt grade parking areas are present on the northern and eastern sides of the building.
- Vegetated, grass areas are present along the western side of the building.
- An unnamed creek adjoins the subject property to the west, and the St. Joseph's River adjoins the subject property to the east.

### 5.4 Material Handling and Storage Practices

#### 5.4.1 Solid and Hazardous Waste

Nonhazardous solid waste currently generated by the facility includes scrap metal parts, waste coolant and oils, cardboard, wood pallets, and general trash. Wood pallets, scrap metal, waste oil, and cardboard are recycled.

The facility does not generate hazardous wastes. The facility was formerly a small quantity hazardous waste generator (MID05050109) for waste LBP and paint filters.

#### 5.4.2 Petroleum Products

Various types of oils (lubricating, hydraulic, and spindle) were formerly used on-site in the manufacturing machines before manufacturing operations ceased at the subject

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property in 2000. Approximately 20 55-gallon drums that were either empty or contained various oils (lubricating and hydraulic) were observed stored on the floor in a nonhazardous waste storage area. According to EaglePicher, these drum were awaiting off-site disposal.

One 2,200-gallon waste coolant AST, one 2,200-gallon waste oil AST, and one 4,000-gallon virgin coolant AST were also observed in this area. These tanks were awaiting being emptied by the waste recycler that is used at the site.

#### 5.4.3 Aboveground and Underground Storage Tanks

There presently are no USTs at the subject property. However, one 2,000-gallon UST containing water-soluble coolant was installed at the subject property on January 18, 1978 and was removed from the ground in January 1993.

The following ASTs are present at the subject property.

- One 2,200-gallon waste coolant;
- One 4,000-gallon virgin coolant; and
- One 2,200-gallon waste oil.

#### 5.5 Water, Wastewater, and Storm Water

No ponds, settling ponds, lagoons, surface impoundments, or wetlands were observed at the subject property during the site reconnaissance.

#### 5.5.1 Potable Water

Potable water is supplied to the subject property by the City of Hillsdale. No drinking water wells are present on the subject property.

#### 5.5.2 Wastewater

The subject property generates sanitary wastewater that is discharged to the City of Hillsdale combined sanitary/storm-water sewer system.

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#### 5.5.3 Storm Water

According to a May 28, 1996 Stormwater Pollution and Prevention Plan (SWPP) prepared by the Traverse Group, storm-water at the subject property infiltrates directly into the ground, flows toward an outlet located in the northwestern corner of the subject property that discharges to a drainage ditch that eventually empties to the St. Joseph River, or discharges directly to the St. Joseph River. Storm water from the building roof drains infiltrates into the ground. Storm-water discharge to the St. Joseph River from the subject property is permitted under National Pollutant Discharge Elimination System (NPDES) Permit No. MIR11J008.

According to the Traverse Group, a composite storm-water sample was collected in 1992 from various points that discharge to the St. Joseph River. No unusual results were obtained from the analysis, and no visible evidence of adversely affected storm water was observed on-site.

#### 5.6 Air Emissions

According to Mr. Douglas Rommeck, Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher, the subject property formerly emitted volatile organic compounds (VOCs) from the application of bond adhesive and water-based paints. Manufacturing and painting operations ceased at the subject property in 2000. An inspector from the MDEQ visited the site (date unspecified) to confirm no manufacturing and painting operations were occurring at the site, and the air permit was terminated.

#### 5.7 Asbestos and Lead-Based Paint Survey

A comprehensive ACM and LBP survey of the subject property with analytical testing was conducted by Fibertec on March 8 and 9, 2004. Based on the visual inspection, 48 distinct suspect ACMs and 7 major paint colors were identified at the subject property. Fibertec's report is included in Appendix E.

The following materials were found to contain asbestos at the subject property:

 Aircell pipe straight insulation (men's rest room in southern hallway, Bay 5 area, test area, northeastern corner);

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- Gray transite panel (southwestern office above ceiling in southern hallway; southwestern sprinkler room above ceiling);
- Braided white pipe wrap (Bay 3 open area northeastern corner; Bay 3 open area, northern corner; Bay 3 open area southwestern corner);
- 9 inch x 9 inch cream floor tile and associated mastic (main lobby rest room southeastern corner);
- Ceiling light heat shield (executive office in southern hallway off main lobby bathroom);
- Rust speckled linoleum (telecommunication room in sales/marketing area northeastern and southwestern corners); and
- The fire door and frame were assumed to contain asbestos.

The following paints at the subject property were found to be lead-based (0.5% or greater lead by weight):

- Red paint (sprinkler system); and
- Yellow paint (Bay 2 support beams and gas lines).

The following paints at the subject property were found to be lead-containing (less than 0.5% lead by weight). No paints were found to be non lead-containing.

- Cream paint (Office areas);
- Light blue paint over green (Bay 2 center wall);
- Cream paint over green (Bay 4 area);
- Gray paint over red in floor areas (quality office area); and
- Dark green paint (Bay 4 area).

Based on the ACM and LBP survey, Fibertec recommends the following activities be conducted:

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- Notify the owner, building maintenance staff, and contractors of the presence, quantity, location, and condition of the ACM and LBP.
- Remove and replace (with a non-asbestos replacement product), if necessary, the severely damaged condition of the visible, accessible asbestos-containing braided pipe wrap insulation in the Bay 3 area.
- Repair the slightly damaged straight pipe insulation in men's rest room in southern hallway because of its damaged condition.
- Given the undamaged condition of the remaining ACM, manage the ACM in place until such a time as it requires replacement.
- In the event of building renovation or demolition, remove the ACM from areas where they will be disturbed. Control the dust generated from the demolition activities that might generate lead dust and control lead exposure to within regulatory limits.
- Conduct on-site air monitoring during asbestos removal and lead containing painted surface demolition to document compliance with applicable regulations and to document acceptable air quality following the work.
- Apply labels indicating 'Materials contain asbestos fibers. Avoid creating dust.
   Cancer and lung disease hazard.' above drop ceiling or near or on the pipe straight insulation.

#### 5.8 Permits

Various building permits have been issued for construction activities conducted at the subject property since the property was originally developed in the 1940s. Refer to Section 2.5 for additional information on these permits.

Surface-water runoff from the subject property discharges to the St. Joseph River under NPDES Permit No. MIR11J008.

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#### 6. Interviews

#### 6.1 Interview with Owner/Site Manager

Ms. Greene is the EHS Manager for the subject property and has been employed at the subject property for over one year. The information provided by Ms. Greene about past tenants and site operations is included throughout this report.

Mr. Rommeck is the Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher and has been employed with EaglePicher for more than three years. The information provided by Mr. Rommeck about past tenants and site operations is included throughout this report.

#### 6.2 Interviews with Occupants

EaglePicher and Hillsdale Tool have occupied the subject property since its construction. Mr. Wright is a Machine Rebuild Engineer with EaglePicher and has been employed at the subject property for more than 20 years. The information provided by Mr. Wright about past tenants and site operations is included throughout this report.

#### 6.3 Interviews with Local Government Officials

ARCADIS contacted the MDEQ, City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency to review any files that may be present regarding the subject property. Information received from this department is included throughout this report.

#### 6.4 Interviews with Others

No additional interviews were conducted.

#### 7. Phase I Environmental Site Assessment Conclusions

In the professional opinion of ARCADIS, an appropriate level of inquiry has been made into the previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize environmental liability.

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ARCADIS' assessment revealed the following REC in connection with the current and historic operations conducted at the subject property and adjacent properties.

• A reinforced concrete containment area (of unknown capacity) and below-grade sump are located in the chip bay area to collect coolant draining from the metal chip roll-off containers. The integrity of these below-grade structures could not be verified during the site reconnaissance.

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

- The following materials were found to contain asbestos at the subject property:
  - Straight aircell pipe insulation (men's rest room in southern hallway, Bay 5 area, test area, northeastern corner);
  - Gray transite panel (southwestern office above ceiling in southern hallway; southwestern sprinkler room above ceiling);
  - Braided white pipe wrap (Bay 3 open area northeastern corner; Bay 3 open area, northern corner; Bay 3 open area southwestern corner);
  - 9-inch x 9-inch cream floor tile and associated mastic (main lobby restroom southeastern corner):
  - Ceiling light heat shield (executive office in southern hallway off main lobby bathroom);
  - Rust speckled linoleum (telecommunication room in sales/marketing area northeastern and southwestern corners);
  - The fire door and frame were assumed to contain asbestos.
- The following paints at the subject property were found to be lead-based (0.5% or greater lead by weight):
  - Red paint (sprinkler system), and
  - Yellow paint (Bay 2 support beams and gas lines)

The visible, accessible asbestos-containing braided pipe wrap insulation in the Bay 3 area is severely damaged. Fibertec recommends this material be removed and, if necessary, replaced with a non-asbestos replacement product given condition of the material. Also, the slightly damaged straight pipe insulation in the men's rest room in the southern hallway should be repaired because of its damaged condition. Labels indicating 'Materials contain asbestos fibers. Avoid creating dust. Cancer and lung disease hazard.' should be applied on or near these areas to inform plant employees.

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#### 8. Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

In addition, a comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec at the subject property on March 8 and 9, 2004.

### 9. Phase II Investigation

ARCADIS conducted a Phase II subsurface investigation to characterize soil and groundwater quality beneath the subject property with particular attention to the REC recently identified by ARCADIS during the January 2004 Phase I ESA. The Phase II subsurface investigation was conducted on March 9 and 10, 2004 and was performed in accordance with ASTM Standard E1903-97, *Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process.* A comparison of the analytical results was made to the residential criteria established in Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, as amended, Section R 299.5744, dated December 21, 2002 (Part 201).

#### 9.1 Subsurface Investigation

To evaluate subsurface soil and groundwater quality, ARCADIS installed five soil borings (SSG-1 through SSG-5) on March 9 and 10, 2004 at the locations shown on Figure 3. A summary of the justification for each sample location and the media that was sampled is listed below:

Boring Identification	Reason for Boring or Location	Media Sampled
SSG-1	Eastern property boundary.	Groundwater
SSG-2	Northern property boundary.	Groundwater
SSG-3	Vicinity of sump in chip bay area on the west side of the plant.	Soil, Groundwater
SSG-4	Vicinity of sump in chip bay area on the north side of the plant.	Soil, Groundwater
SSG-5	Southern property boundary.	Groundwater

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Soil borings were completed using a truck-mounted Geoprobe® drill rig operated by Fibertec Environmental Services (Fibertec) of Holt, Michigan. Soil samples were collected continuously from ground surface using a 2-inch by 4-foot macro core fitted with a removable cutting shoe and disposable acetate liner. All drilling and sampling equipment were power washed with a steam cleaner between samples to minimize the risk of cross contamination. Soil borings installed were drilled to a maximum of 15 feet below ground surface or until groundwater was encountered. Samples were field screened for VOCs using a photoionization detector (PID). PID readings ranged from less than the instrument detection in Soil Borings SSG-1, SSG-2, and SSG-5 to approximately 400 ppm in Soil Borings SSG-3 and SSG-4. Visible staining was not observed in any of soil borings during drilling. However, a petroleum odor was observed at Soil Boring SSG-3 from 8 feet to 10 feet below ground surface. A soil boring west of the subject property could not be installed to groundwater due to a below-grade obstruction at approximately 7 feet below ground surface. Five attempts were made to relocate this boring. Boring logs are included in Appendix F.

One soil sample and one groundwater sample were collected for laboratory analysis from each of the soil borings installed to address the January 2004 Phase I ESA RECs (SSG-3 and SSG-4) and one groundwater sample was collected from Soil Borings SSG-1, SSG-2, and SSG-5 to evaluate groundwater quality at the property boundaries. The soil and groundwater samples, along with proper chain-of-custody documentation, were submitted to Fibertec of Holt, Michigan for analysis of VOCs by USEPA Method 8260, PAHs by USEPA Method 8270, and the 10 Michigan metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc) using USEPA Methods 6020 and 7471. Samples collected for VOC analysis were collected in an Encore® sampler in accordance with USEPA Method 5035. Groundwater samples collected for metals analyses were filtered in the field through a 0.45-micron filter.

#### 9.2 Site Geology/Hydrogeology

Soil borings completed during the Phase II investigation encountered approximately 4 to 7 feet of fill material consisting of sand with silt, gravel, and cinders. The fill was underlain by fine sand. A 1- to 1.5- foot peat layer was encountered in Soil Borings SSB-1, SSG-2, and SSG-4 at depths ranging from 6 feet below ground surface (SSG-1) to 8.5 feet below ground surface (SSG-2). The peat was underlain by clay in Soil Boring SSG-6 and by sand in Soil Borings SSG-1 and SSG-2. Gravel was encountered from 13.5 to 15 feet below ground surface (the maximum depth explored) in Soil Boring SSB-1.

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### Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

Saturated soils were encountered in all of the soil borings at depths ranging from 8 to 10 feet below ground surface.

#### 9.3 Laboratory Analytical Results

Copies of the soil and groundwater laboratory analytical reports and chain-of-custody documentation are included in Appendix G.

#### 9.3.1 Soil Analytical Results

Constituents that were detected at concentrations greater than the laboratory detection limit are summarized in Table 1 and shown on Figure 4. Analytical results indicate the following:

- Various VOCs (1,1,2,2-TCA; 1,2,4-TMB; 1,3,5-TMB; n-butylbenzene; sec-butylbenzene; tert-butylbenzene; ethylbenzene; isopropylbenzene; n-propylbenzene; and xylenes) were detected in two soil borings (SSG-3 and SSG-4) installed at the subject property. Concentrations of 1,2,4-TMB; 1,3,5-TMB; n-butylbenzene; sec-butylbenzene; ethylbenzene; n-propylbenzene; and xylenes exceed MDEQ Part 201 residential cleanup criteria (Drinking Water [DW] Protection and Groundwater/Surface-Water Interface [GSI] Protection).
- Elevated detection limits due to sample matrix interference occurred during the VOC and PAH analysis of Soil Samples SSG-3 and SSG-4.
- Naphthalene, 2-methylnaphthalene, fluorene, and phenanthrene were the only PAHs detected at the subject property. Naphthalene in both borings exceed the MDEQ Part 201 residential DW Protection and GSI Protection criteria.
- Various metals (arsenic, barium, cadmium, chromium, copper, lead, selenium, and zinc) were detected at the subject property. Selenium in Soil Boring SSG-3 (510 micrograms per kilogram [μg/kg]) exceeds MDEQ Part 201 GSI Protection criterion, However, this concentration does not exceed the Michigan Statewide Default Background Level for selenium of 4,000 μg/kg. Chromium in Soil Boring SSG-4 (130,000 μg/kg) exceeds MDEQ Part 201 DW Protection and GSI Protection criteria.

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### Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

#### 9.3.2 Groundwater Analytical Results

Constituents that were detected at concentrations greater than the laboratory detection limit are summarized in Table 2 and shown on Figure 5. Analytical results indicate the following:

- Various VOCs (1,2,4-TMB, 1,3,5-TMB; chlorobenzene; ethylbenzene; isopropylbenzene; n-butylbenzene; sec-butylbenzene; tert-butylbenzene; and xylenes) were detected above the laboratory detection limits in the groundwater samples collected within the vicinity of the chip bay area (SSG-3 and SSG-4) of the subject property. However, only 1,2,4-TMB; 1,3,5-TMB; and xylenes exceed the MDEQ Part 201 generic residential criteria (DW and GSI).
- Naphthalene was the only PAH detected in the groundwater samples collected at the subject property and was only detected in Soil Borings SSG-3 (24 micrograms per liter [μg/L]) and SSG-4 (50 μg/L). Each of these concentrations exceeds the MDEQ Part 201 GSI criteria of 13 μg/L.
- Arsenic, barium, chromium, and zinc were detected in some or all of the groundwater samples collected at the subject property. However, none of the concentrations exceeded the MDEQ Part 201 generic residential criteria.

#### 9.4 Conclusions

The soil and groundwater analytical results from samples collected during the Phase II investigation indicate the subject property meets the requirements according to the MDEQ to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the NREPA, PA 451 of 1994, as amended) for soil and groundwater impacts. The extent of these impacts appears to be limited to the area surrounding the chip bay. However, it is unclear whether these impacts are the result of the failure of the sump in the chip bay area or are the residuals of the 1993 LUST incident at the subject property because Soil Boring SSG-3 was installed adjacent to the location of the former 2,000-gallon UST. The 1993 LUST incident received unrestricted residential closure from the MDEQ; however, current analytical results (typical petroleum constituents) show exceedances of the MDEQ residential cleanup criteria.

The current soil analytical results show detections of VOCs and PAHs that were either not previously detected (ethylbenzene, xylenes, fluorene, naphthalene) or have increased (phenanthrene) since the 1993 LUST cleanup investigation. However, the

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### Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

depths that were sampled during the 1993 investigation (6 to 6.5 feet) are not the same as the depths that were sampled during the current investigation (range from 7.5 to 10 feet). In addition, other VOCs, PAHs, and metals were detected in soil and groundwater samples collected during the ARCADIS Phase II investigation that were not analyzed for in 1993, so it is impossible to determine concentrations trends of these constituents.

Elevated detection limits due to sample matrix interference occurred during the VOC and PAH analysis of soil samples SSG-3 and SSG-4. Therefore, numerous constituents that were not detected above the laboratory detection during the current investigation may actually have low-level detections, and accordingly, an accurate determination of concentrations trends of these constituents cannot be made.

#### 10. References

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- Envirologic Technologies, Inc., January 16, 1998. Final Assessment Report, Wort's Main Gate, 120 South Broad Street, Hillsdale, Michigan.
- Farrand, W.R. and D.L. Bell. 1984. *Quaternary Geology of Southern Michigan*. Department of Geological Sciences, The University of Michigan, Ann Arbor, Michigan.
- Greene, Stacy, EaglePicher EHS Coordinator. 2003. Personal communication with D. Sharvin of ARCADIS. January 2004.
- MWR, Inc., February 22, 1996. Closure Report, Hillsdale Tool Facility, Hillsdale, Michigan.
- Rommeck, Douglas, EaglePicher Manager, Health, Safety and Environment. 2004. Personal communication with D. Sharvin of ARCADIS. January 2004.
- STS Consultants, Ltd., April 15, 1992. Analytical Data Obtained from Stockpiled Soils Located on Griswold Street in Hillsdale, Michigan.
- The Traverse Group, May 28, 1996. Stormwater Pollution and Prevention Plan, South Street Plants, EaglePicher Automotive, Hillsdale Tool Division.

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### Phase I and II Environmental Site Assessment

EaglePicher Automotive 135 E. South Street Hillsdale, Michigan

- U.S. Geological Survey, Topographic Map, *Hillsdale, Michigan*, 1992, 7.5-Minute Quadrangle.
- U.S. Geological Survey, Topographic Map, *North Adam, Michigan*, 1992, 7.5-Minute Quadrangle.

Western Michigan University. 1981. Hydrogeologic Atlas of Michigan

### 11. Signatures of Environmental Professionals

Dawn L. Sharvin Staff Scientist

Joseph A. Quinnan, PE, PG

Principal Hydrogeologist/Engineer

Naun Shawin

Robert A. Ferree, CPG

Vice President

### 12. Qualifications of Environmental Professionals

Ms. Sharvin is a Staff Scientist with ARCADIS and has performed environmental site assessment and subsurface investigations for over seven years. She has evaluated releases to the environment and supervised remedial actions. Mr. Quinnan is a Principal Hydrogeologist/Engineer with ARCADIS and has more than 13 years of environmental consulting experience that encompasses a variety of infrastructure, natural resource, and hazardous waste projects. Mr. Ferree is a Vice President with ARCADIS and has over 18 years of environmental consulting experience. Resumes of Ms. Sharvin and Messrs. Quinnan and Ferree's are included in Appendix H.

**Tables** 

ARCADIS Page 1 of 2

Table 1. Constituents Detected in Soil Samples, EaglePicher Automotive, 135 E. South Street, Hillsdale, Michigan

				Statewide	F	Residential & Co	mmercial I Criteri	 a
Sample ID: Sample Depth (ft. bgs): Sample Date:	SSG-3 9-10 3/9/04	SSG-4 7.5-8 3/9/04	SSG-4 Rerun 7.5-8 3/9/04	Default Background Levels	Drinking Water Protection	Groundwater/ Surface-Water Interface Protection	Groundwater Volatilization to Indoor Air Inhalation	Direct Contact
Volatile Organic Compoun	<u>ıds</u>							
1,1,2,2-Tetrachloroethane	140	130	NA	NA	170	1,600	4,300	53,000
1,2,4-Trimethylbenzene	<u>44,000</u>	<u>56,000</u>	NA	NA	2,100	570	110,000	110,000
1,3,5-Trimethylbenzene	<u>9,400</u>	<u>13,000</u>	NA	NA	1,800	1,100	94,000	94,000
n-Butylbenzene	<u>5,200</u>	<u>5,300</u>	NA	NA	1,600	ID	ID	2,500,000
sec-Butylbenzene	<u>4,100</u>	<u>5,500</u>	NA	NA	1,600	ID	ID	2,500,000
tert-Butylbenzene	380	730	NA	NA	1,600	NA	ID	2,500,000
Ethylbenzene	<u>1,200</u>	<u>540</u>	NA	NA	1,500	360	87,000	140,000
lsopropylbenzene	2,300	2,200	NA	NA	91,000	ID	390,000	390,000
n-Propylbenzene	<u>7,300</u>	<u>5,800</u>	NA	NA	1,600	NA	ID	2,500,000
Xylenes	<u>18,000</u>	< 7,500	NA	NA	5,600	700	150,000	150,000
Semivolatile Organic Com	<u>pounds</u>							
2-Methynaphthalene	3,300	590	NA	NA	57,000	ID	ID	8,100,000
Huorene	1,500	460	NA	NA	390,000	5,300	580,000,000	27,000,000
Naphthalene	<u>6,700</u>	<u>1,000</u>	NA	NA	35,000	870	250,000	16,000,000
Phenanthrene	2,200	< 1,700	NA	NA	56,000	5,300	2,800,000	1,600,000
<u>Metals</u>								
Arsenic	1,300	6,000	NA	5,800	23,000	70,000	NLV	7,600
Barium {B}	39,000	22,000	NA	75,000	1,300,000	{G,X}	NLV	37,000,000
Cadmium {B}	90	280	NA	1,200	6,000	{G,X}	NLV	550,000
Chromium (B,H)	6,500	<u>130,000</u>	<u>35,000</u>	18,000	30,000	3,300	NLV	2,500,000
Copper {B}	2,800	36,000	NA	32,000	5,800,000	(G)	NLV	20,000,000
Lead (B)	3,600	7,000	NA	21,000	700,000	{G,M,X}	NLV	400,000
Selenium {B}	<u>510</u>	< 200	NA	410	4,000	400	NLV	2,600,000
Zinc {B}	8,800	13,000	NA	47,000	2,400,000	{G}	NLV	170,000,000

See notes on page 2.

ARCADIS Page 2 of 2

#### Table 1. Constituents Detected in Soil Samples, EaglePicher Automotive, 135 E. South Street, Hillsdale, Michigan

#### Notes:

All units in micrograms per kilogram (µg/kg).

Only compounds that were detected at concentrations greater than the laboratory detection limit are shown. Samples were analyzed for volatile organic compounds (VOCs), polynuclear hydrocarbons (PAHs), and the Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc).

Bold Concentration exceeds comparison criteria.

Cleanup criteria published in Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, as amended, Section R 299.5744, dated December 21, 2002.

{A} Criterion is the state of Michigan drinking water standard.

Background, as defined in Rule 299.5701(b), may be substituted if higher than the calculated cleanup criterion.

{G} Groundwater/Surface-Water Interface (GS) criterion depends on the pH or water hardness, or both, of the receiving waters.

{H} If analytical data are provided for total chromium (Cr) only, they shall be compared to the cleanup criteria for Cr VI.

{M} Calculated criterion is below the Target Detection Limit (TDL); therefore, the criterion defaults to the TDL.

(X) GSI criterion is not protective for surface water that is used as a drinking water source.

ft bgs Feet below ground surface.

ID Insufficient data to develop criterion.

NA Not available.

NLV Not likely to volatilize.

Table 2. Constituents Detected in Groundwater Samples, EaglePicher Automotive, 135 E. South Street, Hillsdale, Michigan

								Residential & Co	mmercial I Criteria	a
Sample ID:	SSG-1	SSG-2	SSG-2 DUPLICATE	SSG-3	SSG-4	SSG-5		Groundwater/	Groundwater Volatilization to	Groundwater
Sample Interval (ft bgs):	7-12	8-13	8-13	9-14	5-10	8-13	Drinking Water		Indoor Air	Contact
Sample Date:	3/9/04	3/9/04	3/9/04	3/9/04	3/9/04	3/9/04		Interface	Inhalation	Somua
Volatile Organic Compound	is									
1,2,4-Trimethylbenzene	< 1	< 1	< 1	<u>51</u>	<u>320</u>	< 1	63	17	56,000	56,000
1,3,5-Trimethylbenzene	< 1	< 1	< 1	8.8	50	< 1	72	45	61,000	61,000
Chlorobenzene	< 1	< 1	< 1	1.5	< 5	< 1	100	47	210,000	86,000
Ethylbenzene	< 1	< 1	< 1	2	6.5	< 1	74	18	110,000	170,000
Isopropylbenzene	< 1	< 1	< 1	33	16	< 1	800	ID	56,000	56,000
Naphthalene	NA	NA	NA	NA	<u>50</u>	NA	520	13	31,000	31,000
n-Butylbenzene	< 1	< 1	< 1	8.8	16	< 1	80	ID	ID	5,900
sec-Butylbenzene	< 1	< 1	< 1	11	14	< 1	80	ID	ID	4,400
tert-Butylbenzene	< 1	< 1	< 1	1.2	< 5	< 1	80	ID	ID	8,900
Xylenes	< 3	< 3	< 3	22	<u>80</u>	< 3	280	35	190,000	190,000
Semivolatile Organic Comp										
Naphthalene	< 5	< 5	< 5	<u>24</u>	NA	< 5	520	13	31,000	31,000
Metals (Dissolved)										
Arsenic	< 10	< 10	< 10	19	NA	< 10	50	150	NLV	4,300
Barium	140	< 100	< 100	130	NA	< 100	2,000	{G,X}	NLV	14,000,000
Chromium	9	10	6.9	< 5	NA	5.9	100	11	NLV	290,000,000
Zinc	< 10	< 10	< 10	11	NA	17	2,400	{G}	NLV	110,000,000

#### Notes:

All units in micrograms per liter (µg/L).

Only compounds that were detected at concentrations greater than the laboratory detection limit are shown. Samples were analyzed for volatile organic compounds (VOCs), polynuclear hydrocarbons (PAHs), and the Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc).

Bold Concentration exceeds comparison criteria.

Cleanup criteria published in Part 201 of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, as amended, Section R 299.5744, dated December 21, 2002.

G) Groundwater/Surface-Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving waters,

(X) GSI criterion is not protective for surface water that is used as a drinking water source.

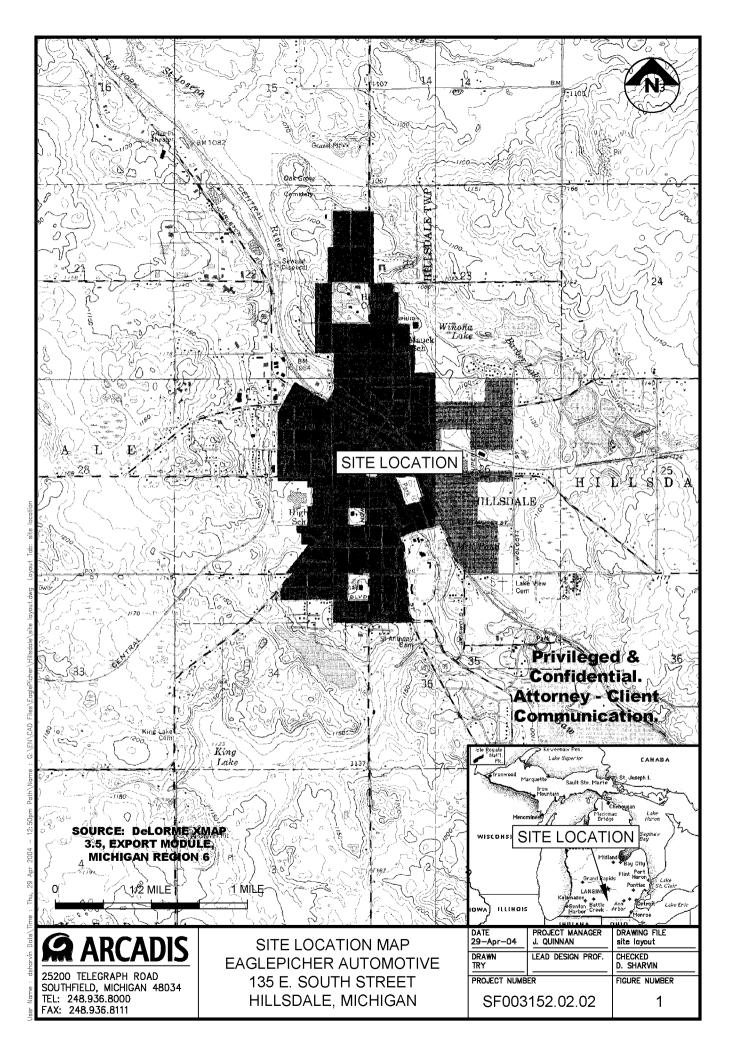
ft bgs Feet below ground surface.

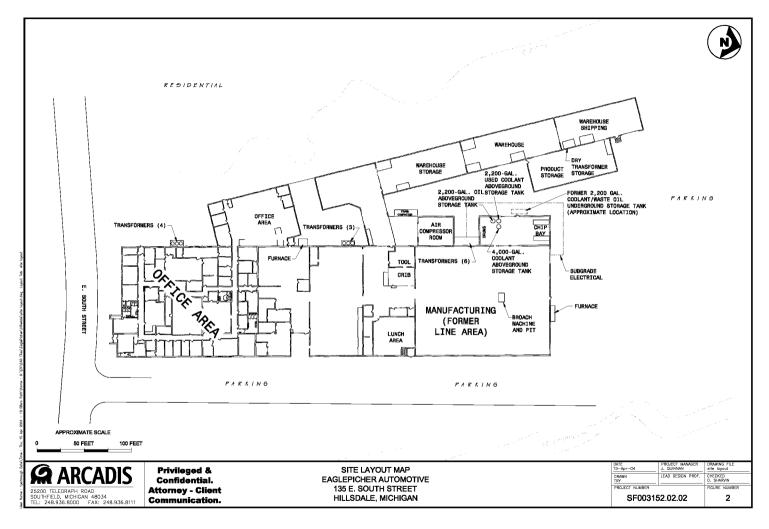
ID Insufficient data to develop criterion.

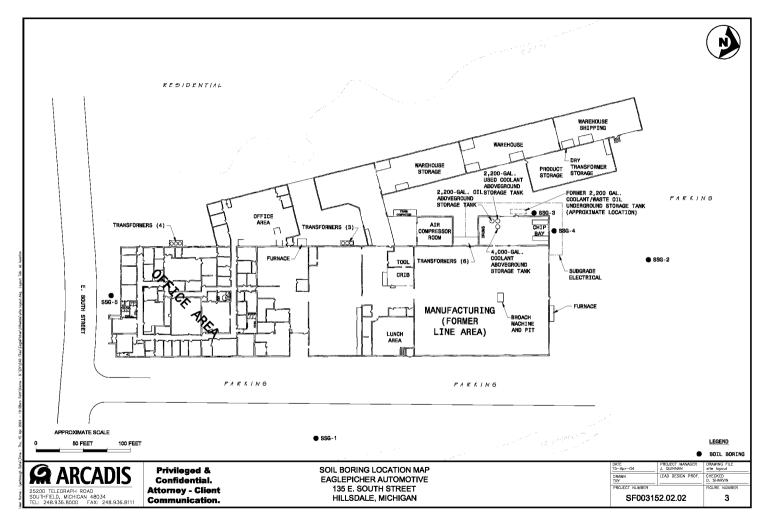
NA Not analyzed.

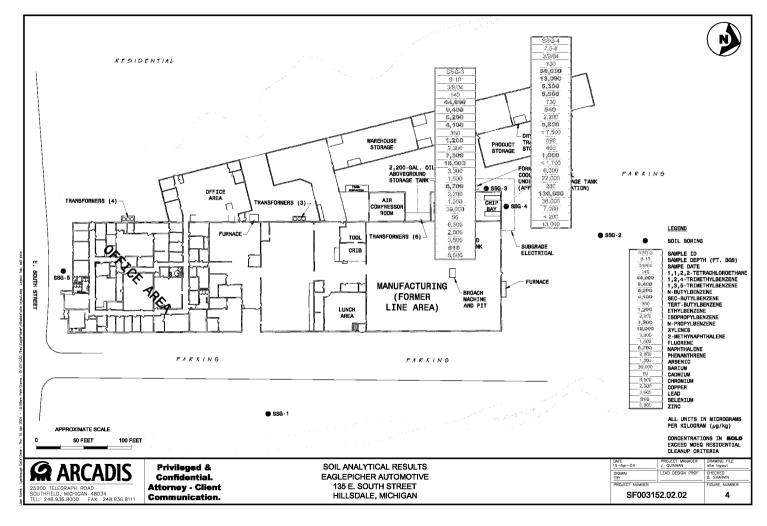
NLV Not likely to volatilize.

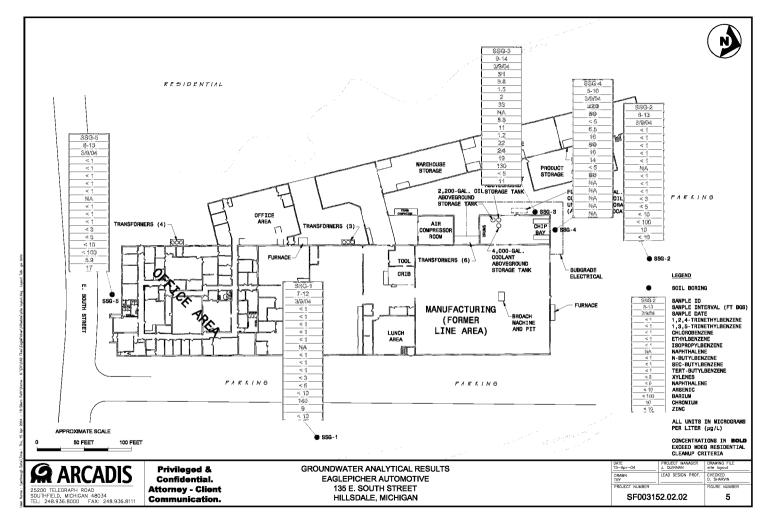
Figures









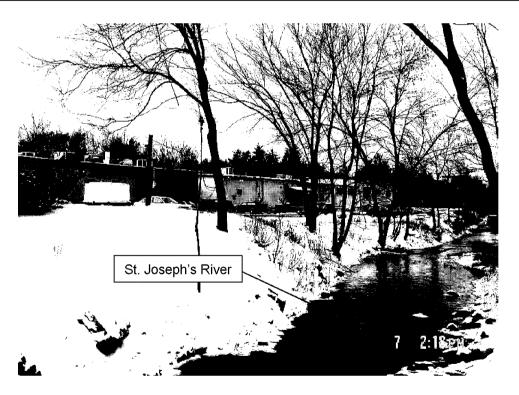


Appendix A

Ste Photographs



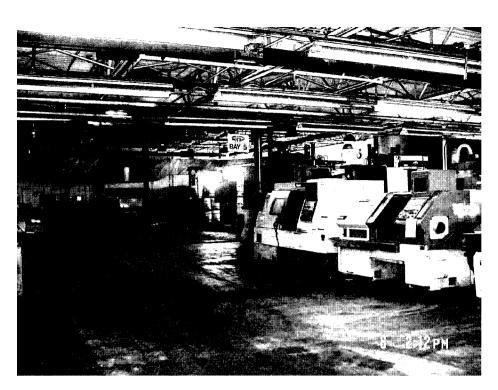
View of north side of building (facing southwest).



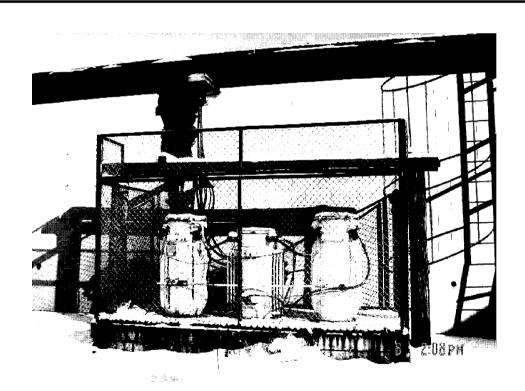
View of east side of building (facing northeast).

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111 SITE PHOTOGRAPH LOG EAGLEPICHER AUTOMOTIVE 135 E. SOUTH STREET HILLSDALE, MICHIGAN

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	APPENDIX:	
SF003 <sup>2</sup>	Α	



View of former manufacturing area of building now used for machine storage.



Typical wet-type, pad mounted, non-PCB containing transformers.

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111 SITE PHOTOGRAPH LOG EAGLEPICHER AUTOMOTIVE 135 E. SOUTH STREET HILLSDALE, MICHIGAN

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	APPENDIX:	
SF003 <sup>2</sup>	Α	



View of former chip bay area of building.



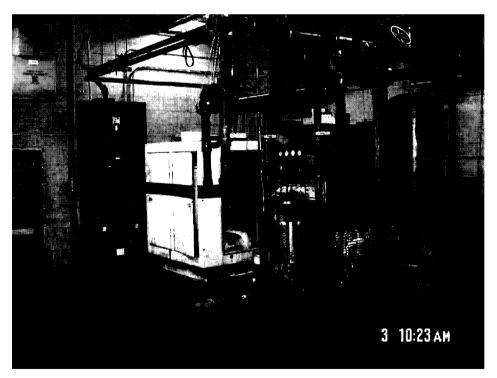
55-gallon drum storage area.

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111 SITE PHOTOGRAPH LOG EAGLEPICHER AUTOMOTIVE 135 E. SOUTH STREET HILLSDALE, MICHIGAN

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	APPENDIX:	
SF003 <sup>2</sup>	Α	



View of light machining area of building.

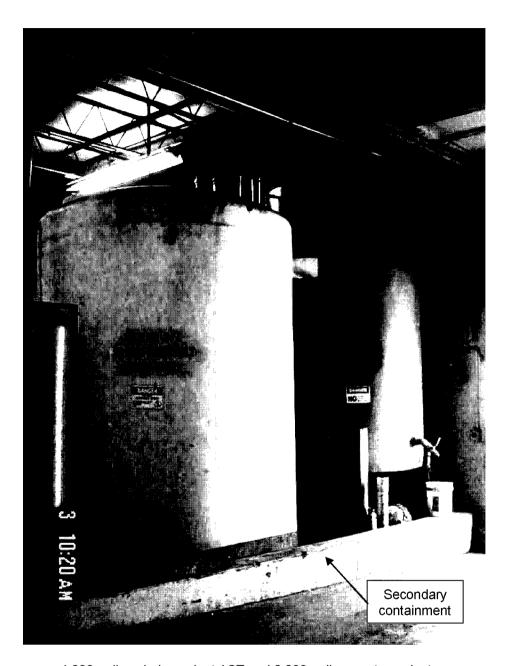


Air compressor room.

**ARCADIS** 

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111 SITE PHOTOGRAPH LOG EAGLEPICHER AUTOMOTIVE 135 E. SOUTH STREET HILLSDALE, MICHIGAN

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBER:		APPENDIX:
SF003152.02.02		Α



4,000-gallon virgin coolant AST and 2,200-gallon waste coolant .

**ARCADIS** 

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

SITE PHOTOGRAPH LOG **EAGLEPICHER AUTOMOTIVE** 135 E. SOUTH STREET HILLSDALE, MICHIGAN

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBER:		APPENDIX:
SF003152.02.02		Α

# ARCADIS

Appendix B

EDR Report



# The EDR Radius Map with GeoCheck'

EaglePicher 135 E. South St. Hillsdale, MI 49242

Inquiry Number: 1097745.4s

December 11, 2003

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com

FORM-DPM

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

135 E. SOUTH ST. HILLSDALE, MI 49242

#### COORDINATES

Latitude (North): 41.915900 - 41° 54′ 57.2″ Longitude (West): 84.626400 - 84° 37′ 35.0″

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 696846.1 UTM Y (Meters): 4642950.0

Elevation: 1092 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 41084-H6 HILLSDALE, MI Source: USGS 7.5 min quad index

#### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	<u>Database(s)</u>	<u>EPA ID</u>
EAGLE-PICHER AUTOMOTIVE SOUTH ST PLT 135 E SOUTH ST HILLSDALE, MI 49242	RCRIS-SQG FINDS CERC-NFRAP UST LUST	MID005050109
HILLSDALE TOOL AND MFG CORP  135 E SOUTH ST  HILLSDALE MI 49242	FTTS INSP	N/A

#### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL...... National Priority List

Proposed NPL\_\_\_\_\_Proposed National Priority List Sites

System

CORRACTS...... Corrective Action Report

ERNS..... Emergency Response Notification System

#### STATE ASTM STANDARD

SWF/LF...... Solid Waste Facilities Database HIST LF...... Inactive Solid Waste Facilities

INDIAN UST...... Underground Storage Tanks on Indian Land

#### FEDERAL ASTM SUPPLEMENTAL

CONSENT.....Superfund (CERCLA) Consent Decrees

ROD...... Records Of Decision

Delisted NPL..... National Priority List Deletions

HMIRS..... Hazardous Materials Information Reporting System

MLTS..... Material Licensing Tracking System

TRIS\_\_\_\_\_\_ Toxic Chemical Release Inventory System TSCA\_\_\_\_\_\_ Toxic Substances Control Act

SSTS....... Section 7 Tracking Systems

#### STATE OR LOCAL ASTM SUPPLEMENTAL

AST\_\_\_\_\_ Aboveground Tanks

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 2 RCRIS-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ESSEX GROUP INC	170 E SOUTH ST	0 - 1/8 ENE		7
VALENTINE UNION 76	120 S BROAD ST	1/8 - 1/4 NW		14

#### STATE ASTM STANDARD

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Environmental Quality's' Contaminated Sites List on Diskette With Address.

A review of the SHWS list, as provided by EDR, has revealed that there are 4 SHWS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir Ma	ap ID Page
CONTOUR PLASTICS FORMER LICENSED CITY LF HILLSDALE IRON & METAL-MDEQ	29 SUPERIOR ST WATERWORKS AVE / GRIS 80 GLENDALE AVE	1/4 - 1/2NE 16 1/2 - 1 SSE 18 1/2 - 1 WNW 21	30
Lower Elevation	Address	Dist / Dir Ma	ap ID Page
HILLSDALE RAILYARD	MONROE AND HILLSDALE ST	1/2 - 1 NNW 19	9 31

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 09/12/2003 has revealed that there are 7 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
RITTER SELF SERVE	240 S BROAD ST	0 - 1/8 W	5	9
WORTS MAIN GATE	120 S BROAD ST	1/8 - 1/4 NW	C7	14

TC1097745.4s EXECUTIVE SUMMARY 3

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
HILLSDALE COMMUNITY HLTH CENTE	168 S HOWELL ST	1/4 - 1/2WSW	/ 8	17
MARATHON UNIT 2559	42 E WALDRON & HOWELL	1/4 - 1/2NW	D10	18
JONESVILLE CITGO INC	420 SOUTH M-99	1/4 - 1/2S	17	25
Lower Elevation	Address	Dist / Dir	Map ID	Page
DAISY PARTS INC	56 WILLOW ST	1/4 - 1/2N	E12	21
HILLSDALE CO ROAD COMMISSION	35 FERRIS ST	1/4 - 1/2NNW	' F13	22

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 09/12/2003 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
ALAMO	170 E SOUTH ST	0 - 1/8 ENE		8
RITTER SELF SERVE WORTS MAIN GATE	240 S BROAD ST 120 S BROAD ST	0 - 1/8   W 1/8 - 1/4 NW	5 C7	9 14

#### BEA: Baseline Environmental Assessment.

A review of the BEA list, as provided by EDR, and dated 09/16/2003 has revealed that there are 4 BEA sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
Not reported	30 S HOWELL	1/4 - 1/2NW	D9	18
Lower Elevation	Address	Dist / Dir	Map ID	Page
Not reported Not reported Not reported	52 WILLOW ST 38 FERRIS ST 90 EAST CARLETON ROAD	1/4 - 1/2 N 1/4 - 1/2 NNW 1/4 - 1/2 NNW		20 24 24

#### PROPRIETARY DATABASES

Former Manufactured Gas (Coal Gas) Sites:

The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative

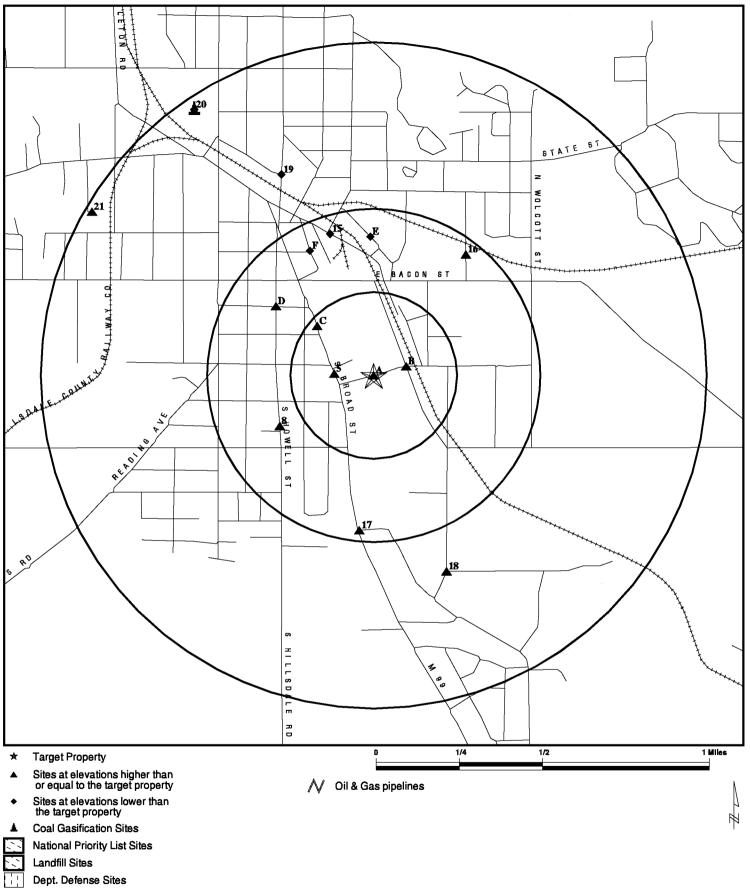
A review of the Coal Gas list, as provided by EDR, has revealed that there is 1 Coal Gas site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
HILLSDALE GAS CO.	WEST OF RIVER ST., SOUT	1/2 - 1 NW	20	31

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
BILCOR PLASTICS	SHWS
KESSERLING, HOWARD 4	SHWS
HILLSDALE COAL GASIFICATION FAC	SHWS
LUCAS LF/JONESVILLE GARBAGE SRVC	SHWS
HILLSDALE COAL GASIFICATION FAC	CERC-NFRAP
7 - 11 MOLBIL	LUST
STILLWELL KEN FORD MERCURY INC	RCRIS-SQG, FINDS

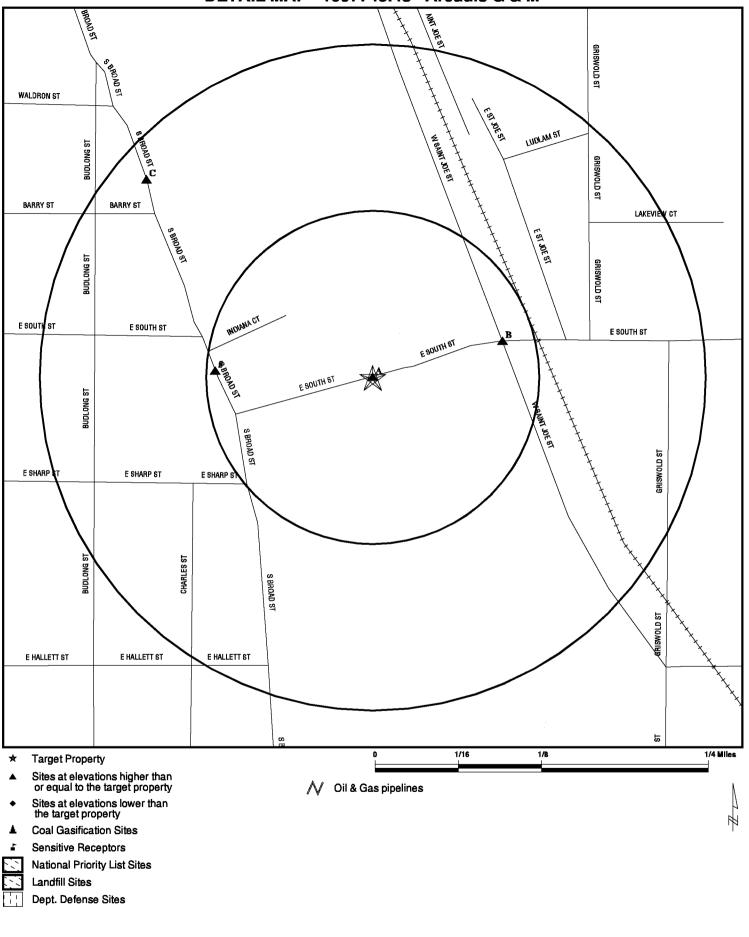
# OVERVIEW MAP - 1097745.4s - Arcadis G & M



TARGET PROPERTY: EaglePicher CUSTOMER: Arcadis G & M ADDRESS: 135 E. South St. CONTACT: Dawn Sharvin CITY/STATE/ZIP: Hillsdale MI 49242 INQUIRY #: 1097745.4s

LAT/LONG: 41.9159 / 84.6264 DATE: December 11, 2003 7:06 pm

# **DETAIL MAP - 1097745.4s - Arcadis G & M**



TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP: LAT/LONG: EaglePicher 135 E. South St. Hillsdale MI 49242 41.9159 / 84.6264 CUSTOMER: CONTACT: INQUIRY #:

DATE:

Arcadis G & M Dawn Sharvin 1097745.4s

December 11, 2003 7:06 pm

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	> 1	Total Plotted			
FEDERAL ASTM STANDARD											
NPL Proposed NPL CERCLIS CERC-NFRAP CORRACTS RCRIS-TSD RCRIS Lg. Quan. Gen. RCRIS Sm. Quan. Gen. ERNS	×	1.000 1.000 0.500 0.250 1.000 0.500 0.250 0.250 TP	0 0 0 0 0 0 0 1 NR	0 0 0 0 0 0 1 NR	0 0 0 NR 0 0 NR NR NR	0 0 NR NR 0 NR NR NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 0 0			
STATE ASTM STANDARD											
State Haz. Waste State Landfill LUST UST BEA HIST LF INDIAN UST	×	1.000 0.500 0.500 0.250 0.500 0.500 0.250	0 0 1 2 0 0	0 0 1 1 0 0	1 0 5 NR 4 0 NR	3 NR NR NR NR NR	NR NR NR NR NR NR	4 0 7 3 4 0			
FEDERAL ASTM SUPPLEMENTAL											
CONSENT ROD Delisted NPL FINDS HMIRS MLTS MINES NPL Liens PADS US BROWNFIELDS DOD RAATS TRIS TSCA SSTS FTTS	×	1.000 1.000 1.000 TP TP TP 0.250 TP TP 0.500 1.000 TP TP TP TP	0 0 0 RR RR 0 RR O 0 RR RR R NR O NR RR NR O NR RR	0 0 0 RRR 0 RR 0 0 RR RR RR NR 0 RR	0 0 0 R R R R R R R O 0 R R R R R R R R	0 0 0 R R R R R R R R R R R R R R R R R	N R R R R R R R R R R R R R R R R R R R	0 0 0 0 0 0 0 0 0			
STATE OR LOCAL ASTM SUPPLEMENTAL											
AST DEL SHWS PEAS		TP 1.000 TP	NR 0 NR	NR 0 NR	NR 0 NR	NR 0 NR	NR NR NR	0 0 0			
EDR PROPRIETARY HISTORICAL DATABASES											
Coal Gas		1.000	0	0	0	1	NR	1			

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
BROWNFIELDS DATABAS	<u>ES</u>							
US BROWNFIELDS		0.500	0	0	0	NR	NR	0

## NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

#### MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)
Elevation
Site

Distance (ft.)

Elevation Site

EDR ID Number

EPA ID Number

Database(s) EPA ID Number

A1 EAGLE-PICHER AUTOMOTIVE SOUTH ST PLT RCRIS-SQG 1000292247
Target 135 E SOUTH ST FINDS MID005050109

Property HILLSDALE, MI 49242 CERC-NFRAP UST

Site 1 of 2 in cluster A LUST

Actual: 1092 ft.

CERCLIS-NFRAP Classification Data:
Site Incident Categor Not reported
Federal Facility: Not a Federal Facility

Non NPL Code: NFRAP
Ownership Status: Other NPL Status: Not on the NPL

CERCLIS-NFRAP Assessment History: Assessment: DISCOVERY

Assessment: DISCOVERY Completed: 10/28/1985
Assessment: PRELIMINARY ASSESSMENT Completed: 01/03/1986
Assessment: ARCHIVE SITE Completed: 10/21/1987
Assessment: SITE INSPECTION Completed: 10/21/1987

RCRIS:

EPA ID:

Owner: EAGLE-PICHER INDUSTRIES INC

(513) 721-7010 MID005050109

Contact: DONALD DUNLAP

(517) 439-9381

Classification: Small Quantity Generator

TSDF Activities: Not reported
Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS) National Compliance Database (NCDB)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

LUST:

Facility ID: 00006232
Release Number: C-0239-93
Release Date: Feb 8 1993
Facility Status: Closed

District: Jackson District Office

Closed Date: Feb 28 1996 Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381
Contact : MARLYN MOON
Facility Phone : (517) 439-9381

UST:

Facility ID: 00006232

Tank ID: 1

Owner: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Owner Phone: 517-439-9381

Product: WATER SOLUABLE COOLA

Capacity: 2000

Tank Status: Removed from Ground

Direction Distance Distance (ft.)

EDR ID Number Elevation Site Database(s) **EPA ID Number** 

EAGLE-PICHER AUTOMOTIVE SOUTH ST PLT (Continued)

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Fiberglass reinforced plastic, Galvani ed Steel

Piping Type: Gravity Fed? MARLYN MOON Contact: Contact Phone: 517-439-9381

Impressed Device:No

Install Date: Jan 18 1976

Release Detection:

Tank: Not reported Pipe: Not reported

Α2 HILLSDALE TOOL AND MFG CORP FTTS INSP 1006950172 N/A

135 E SOUTH ST Target HILLSDALE, MI 49242

Property

Site 2 of 2 in cluster A

Actual: 1092 ft.

FTTS Insp:

05 Region:

Inspected Date: 9/15/1989 0:00:00 Insp Number: 19890915MI017 1

Violation occurred: No

**SPRITZLEY** Inspector:

Investigation Type: Section 6 PCB State Conducted

Facility Function: Investig Reason: Not reported Legislation Code: **TSCA** 

ВЗ ESSEX GROUP INC RCRIS-SQG 1000225679 **ENE** 170 E SOUTH ST **FINDS** MID005049515

< 1/8 535 ft. HILLSDALE, MI 49242 Site 1 of 2 in cluster B

Relative: Higher

RCRIS:

Owner:

**ESSEX GROUP** 

Actual: 1101 ft.

(219) 461-4000 EPA ID: MID005049515

ITALO BRAGALONE Contact:

(517) 437-3376

Classification: Small Quantity Generator

TSDF Activities: Not reported Violation Status: Violations exist

Regulation Violated: Not reported

GENERATOR-ALL REQUIREMENTS (OVERSIGHT) Area of Violation:

Date Violation Determined: 12/12/1984 Actual Date Achieved Compliance: 01/10/1985

WRITTEN INFORMAL Enforcement Action:

12/18/1984 Enforcement Action Date: Penalty Type: Not reported

There are 1 violation record(s) reported at this site:

Date of Evaluation Area of Violation Compliance GENERATOR-ALL REQUIREMENTS (OVERSIGHT) 19850110 Compliance Evaluation Inspection

1000292247

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s) EPA ID Number

ESSEX GROUP INC (Continued)

1000225679

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

B4 ALAMO UST 1004818280 ENE 170 E SOUTH ST N/A

ENE 170 E SOUTH ST < 1/8 HILLSDALE, MI 49242

535 ft.

Site 2 of 2 in cluster B

Relative: Higher

UST:

Facility ID: 00014633

Actual: Tank ID: 1

1101 ft. Owner: Alamo Div Of Abrasive Materials

Owner Address: PO Box 291

Hillsdale, MI 49242

Owner Phone: 517-437-4796 Product: ROD DIP

Capacity: 5000
Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: HERBERT H. HINE

Contact Phone: 517-437-7527 Impressed Device:No

Impressed Device:No Install Date: May 7 1956

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00014633

Tank ID: 2

Owner: Alamo Div Of Abrasive Materials

Owner Address: PO Box 291

Hillsdale, MI 49242

Owner Phone: 517-437-4796
Product: ROD DIP
Capacity: 5000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: HERBERT H. HINE
Contact Phone: 517-437-7527
Impressed Device No

Install Date: May 7 1956

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00014633

Tank ID: 4

Owner: Alamo Div Of Abrasive Materials

Owner Address: PO Box 291

Hillsdale, MI 49242

Owner Phone: 517-437-4796
Product: 400 DIP

Direction
Distance
Distance (ft.)

Elevation Site Database(s) EPA I

EDR ID Number abase(s) EPA ID Number

1004818280

ALAMO (Continued)

Capacity: 5000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: HERBERT H. HINE
Contact Phone: 517-437-7527

Impressed Device:No

Install Date: May 7 1956

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00014633

Tank ID: 5

Owner: Alamo Div Of Abrasive Materials

Owner Address: PO Box 291

Hillsdale, MI 49242

Owner Phone: 517-437-4796
Product: SLUDGE
Capacity: 12000

Tank Status: Closed in Ground

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: HERBERT H. HINE

Contact Phone: 517-437-7527

Impressed Device:No

Install Date: May 8 1951

Release Detection:

Tank: Not reported Pipe: Not reported

5 RITTER SELF SERVE West 240 S BROAD ST

< 1/8 HILLSDALE, MI 49242

625 ft.

Relative: LUST:

Higher Facility ID: 00003543
Release Number: C-0376-85
Actual: Release Date: Nov 10 1989

1115 ft. Facility Status: Open

District: Jackson District Office

Closed Date: Not reported
Owner Contact: Not reported
Owner Name: D B Oil Co
Owner Address: Po Box 195

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 437-3140
Contact : DONALD WAIDELY
Facility Phone : (517) 437-3140

Facility ID: 00003543
Release Number: C-0863-89
Release Date: Mar 1 1989
Facility Status: Closed

District: Jackson District Office

UST

LUST

U000254286

N/A

Direction
Distance
Distance (ft.)

Distance (ft.) EDR ID Number
Elevation Site EDR ID Number
Database(s) EPA ID Number

RITTER SELF SERVE (Continued)

Closed Date: Jun 17 2001 Owner Contact: Not reported Owner Name: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 437-3140
Contact : DONALD WAIDELY
Facility Phone : (517) 437-3140

UST:

Facility ID: 00003543

Tank ID:

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543 Tank ID: 2

Owner: D B Oil Co
Owner Address: Po Box 195
Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 3

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline

U000254286

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s) EPA ID Number

RITTER SELF SERVE (Continued)

Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 4

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 5

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 6

Owner: D B Oil Co Owner Address: Po Box 195 U000254286

Direction
Distance
Distance (ft.)
Elevation Site

Database(s)

EDR ID Number EPA ID Number

U000254286

RITTER SELF SERVE (Continued)

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 7

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 5 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003543

Tank ID: 8

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 10000

Tank Status: Currently In Use

Constr Material: Fiberglass Reinforced plastic
Piping Material: Fiberglass reinforced plastic, Secondary Containment

Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 24 1990

Release Detection:

Tank: Manual Tank Gauging
Pipe: Automatic Line Leak Detectors

Facility ID: 00003543

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s)

EPA ID Number

RITTER SELF SERVE (Continued)

Tank ID: 9

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 10000

Tank Status: Currently In Use

Constr Material: Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Secondary Containment

Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 24 1990

Release Detection:

Tank: Manual Tank Gauging
Pipe: Automatic Line Leak Detectors

Facility ID: 00003543

Tank ID: 10

Owner: D B Oil Co

Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 8000
Tank Status: Currently In Use

Constr Material: Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Secondary Containment

Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 24 1990

Release Detection:

Tank: Manual Tank Gauging
Pipe: Automatic Line Leak Detectors

Facility ID: 00003543 Tank ID: 11

Owner: D B Oil Co Owner Address: Po Box 195

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Kerosene
Capacity: 2000

Tank Status: Currently In Use

Constr Material: Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Secondary Containment

Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 24 1990

Release Detection:

Tank: Manual Tank Gauging

U000254286

## MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

RITTER SELF SERVE (Continued) U000254286

Pipe: Automatic Line Leak Detectors

**VALENTINE UNION 76** RCRIS-SQG C6 1004723365 NW 120 S BROAD ST **FINDS** MID985611342

1/8-1/4 HILLSDALE, MI 49242

1192 ft.

Site 1 of 2 in cluster C

Relative: Higher

RCRIS:

WATKINS OIL CO Owner: EPA ID: MID985611342 Actual: 1114 ft. Contact: DANIEL WATKINS

(517) 437-3140

Classification: Conditionally Exempt Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

C7 WORTS MAIN GATE UST U003210846 NW 120 S BROAD ST LUST N/A

1/8-1/4 HILLSDALE, MI 49242 1192 ft.

Site 2 of 2 in cluster C

Relative: Higher

LUST:

Facility ID: 00003549 Release Number: C-0300-96 Actual: May 10 1996 1114 ft. Release Date:

> Facility Status: Open

Jackson District Office District:

Closed Date: Not reported Owner Contact: Not reported D B Oil Co Owner Name: Owner Address: 120 W Fayette St Hillsdale, MI 49242

USA

Country:

(517) 437-3140 Owner Phone: Contact : DONALD WAIDELY (517) 437-3140 Facility Phone:

Facility ID: 00003549 Release Number: C-0309-96 May 13 1996 Release Date:

Facility Status: Open

District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported Owner Name: D B Oil Co Owner Address: 120 W Fayette St Hillsdale, MI 49242

Country: USA

Owner Phone: (517) 437-3140 DONALD WAIDELY Contact:

Direction
Distance
Distance (ft.)
Elevation Site

Distance (ft.) EDR ID Number
Elevation Site EPA ID Number

WORTS MAIN GATE (Continued)

Facility Phone: (517) 437-3140

Facility ID: 00003549
Release Number: C-0472-90
Release Date: Oct 5 1989
Facility Status: Open

District: Jackson District Office

Closed Date: Not reported
Owner Contact: Not reported
Owner Name: D B Oil Co
Owner Address: 120 W Fayette St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 437-3140
Contact : DONALD WAIDELY
Facility Phone : (517) 437-3140

UST:

Facility ID: 00003549

Tank ID: 1

Owner: D B Oil Co Owner Address: 120 W Fayette St

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel

Piping Type: Suction: No Valve At Tank
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 2 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003549

Tank ID: 2

Owner: D B Oil Co Owner Address: 120 W Fayette St

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel

Piping Type: Suction: No Valve At Tank
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 2 1966

Release Detection:

Tank: Not reported Pipe: Not reported

U003210846

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s)

EPA ID Number

WORTS MAIN GATE (Continued)

U003210846

Facility ID: 00003549

Tank ID: 3

Owner: D B Oil Co
Owner Address: 120 W Favette St

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel

Piping Type: Suction: No Valve At Tank
Contact: DONALD WAIDELY

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 2 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003549

Tank ID: 4

Owner: D B Oil Co Owner Address: 120 W Fayette St

Hillsdale, MI 49242 Owner Phone: 517-437-3140

Product: Gasoline
Capacity: 4000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel

Piping Type: Suction: No Valve At Tank
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 2 1966

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003549

Tank ID: 5

Owner: D B Oil Co Owner Address: 120 W Fayette St

Hillsdale, MI 49242 517-437-3140

Owner Phone: 517-437-3
Product: Kerosene
Capacity: 2000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel
Piping Type: Suction: No Valve At Tank
Contact: DONALD WAIDELY

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: May 2 1966

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

WORTS MAIN GATE (Continued)

U003210846

1000488595

N/A

LUST

UST

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00003549

Tank ID: 6

Owner: D B Oil Co Owner Address: 120 W Fayette St

Hillsdale, MI 49242

Owner Phone: 517-437-3140
Product: Used Oil
Capacity: 550

Tank Status: Removed from Ground

Constr Material: Unknown
Piping Material: Unknown
Piping Type: Not reported
Contact: DONALD WAIDELY
Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Not reported

Release Detection:

Tank: Not reported Pipe: Not reported

B HILLSDALE COMMUNITY HLTH CENTER

WSW 168 S HOWELL ST 1/4-1/2 HILLSDALE, MI 49242

LUST:

1691 ft.

Actual:

Relative:

Higher Fac

Facility ID: 00008342 Release Number: C-0372-98 Release Date: May 11 1998

1133 ft. Facility Status: Closed

District: Jackson District Office

Closed Date: Nov 17 1998 Owner Contact: Not reported

Owner Name : Hillsdale Comm HIth Ctr Owner Address : 168 S Howell St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 437-4451 Contact : MICHAEL BRINK Facility Phone : (517) 437-5204

UST:

Facility ID: 00008342

Tank ID: 1

Owner: Hillsdale Comm Hlth Ctr Owner Address: 168 S Howell St

> Hillsdale, MI 49242 517-437-4451

Owner Phone: 517-437
Product: Diesel
Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Unknown
Piping Type: Not reported
Contact: MICHAEL BRINK

#### MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Site Database(s) **EPA ID Number** 

HILLSDALE COMMUNITY HLTH CENTER (Continued)

1000488595

Contact Phone: 517-437-5204

Impressed Device:No Install Date: Mar 27 1978

Release Detection:

Tank: Not reported Pipe: Not reported

D9 BEA S105767595

N/A

NW 30 S HOWELL

1/4-1/2 HILLSDALE CITY, MI 49242

1894 ft.

Site 1 of 2 in cluster D

Relative: BEA:

Higher Petition Disclosure:

BEA Number: 387 Actual: 1125 ft. District: Jackson Date Received: 8/26/02

Submitter Name: Veronica Mensa Petition Determination: No Request

No Hazardous Substance(s) Category:

Determination 20107A: No Request Reviewer: massonp

Storage Tank Division Division Assigned:

Secondary Address: Not reported

Petition Disclosure: 0 BEA Number: 381 District: Jackson Date Received: 8/26/02 Submitter Name: Dr Boakye Petition Determination: No Request

Category: No Hazardous Substance(s)

Determination 20107A: No Request Reviewer: massonp

Storage Tank Division Division Assigned:

Secondary Address: Not reported

D10 **MARATHON UNIT 2559** UST U000254310 NW 42 E WALDRON & HOWELL LUST N/A

1/4-1/2 HILLSDALE, MI 45840

1901 ft.

Site 2 of 2 in cluster D

Relative: LUST:

Higher

Facility ID: 00018198 Release Number: C-1957-91 Actual: 1125 ft. Release Date: Sep 24 1991 Facility Status: Closed

District: Jackson District Office Closed Date: May 16 2001

Owner Contact: Not reported Owner Name: Marathon Oil Co Owner Address: 539 S Main St Findlay, OH 45840

Country: USA

Owner Phone: 734-676-7775 Contact: C.W.OSTING

Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

MARATHON UNIT 2559 (Continued)

(313) 351-7700 Facility Phone:

UST:

Facility ID: 00018198

Tank ID:

Owner: Marathon Oil Co 539 S Main St Owner Address:

Findlay, OH 45840

Owner Phone: 734-676-7775 Product: Gasoline 10000 Capacity:

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Cathodically Protected Steel

Piping Material: Galvani ed Steel Piping Type: Not reported Contact: C.W.OSTING Contact Phone: 313-351-7700

Impressed Device:No

Install Date: May 1 1968

Release Detection:

Tank: Not reported Not reported Pipe:

Facility ID: 00018198

Tank ID:

Owner: Marathon Oil Co Owner Address: 539 S Main St Findlay, OH 45840

Owner Phone: 734-676-7775 Product: Gasoline Capacity: 10000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Cathodically Protected Steel

Piping Material: Galvani ed Steel Piping Type: Not reported Contact: C.W.OSTING Contact Phone: 313-351-7700

Impressed Device:No Install Date: May 1 1968

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00018198

Tank ID: С

Marathon Oil Co Owner: Owner Address: 539 S Main St

Findlay, OH 45840

Owner Phone: 734-676-7775 Product: Gasoline Capacity: 10000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Cathodically Protected Steel

Piping Material: Galvani ed Steel Piping Type: Not reported C.W.OSTING Contact: Contact Phone: 313-351-7700

Impressed Device:No

U000254310

Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

MARATHON UNIT 2559 (Continued)

May 1 1968 Install Date:

Release Detection:

Tank: Not reported Pipe: Not reported

00018198 Facility ID:

Tank ID:

Marathon Oil Co Owner: Owner Address: 539 S Main St

Findlay, OH 45840

734-676-7775 Owner Phone: Product: Used Oil

Capacity: 550

Tank Status: Removed from Ground Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported Contact: C.W.OSTING Contact Phone: 313-351-7700 Impressed Device:No

Install Date: May 1 1968

Release Detection:

Tank: Not reported Pipe: Not reported

E11 BEA S105767599 N/A

North 52 WILLOW ST

1/4-1/2 HILLSDALE CITY, MI 49242

2199 ft.

Site 1 of 2 in cluster E

Relative:

BEA: Lower Petition Disclosure:

BEA Number: 350 Actual: 1087 ft. District: Jackson Date Received: 3/18/02

> Submitter Name: Hillsdale Properties/Dwight Shaneor

Petition Determination: No Request

No Hazardous Substance(s) Category:

Determination 20107A: No Request Reviewer: katkov

Environmental Response Division Division Assigned:

Secondary Address: Not reported

Petition Disclosure: BEA Number: 349 District: Jackson 3/18/02 Date Received:

Submitter Name: American Copper & Brass/Bill Smith

Petition Determination: No Request

Category: No Hazardous Substance(s)

Determination 20107A: No Request Reviewer: katkov

Environmental Response Division Division Assigned:

Secondary Address: Not reported U000254310

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

(Continued) S105767599

E12 DAISY PARTS INC RCRIS-SQG 1000390547
North 56 WILLOW ST FINDS MID005037866

1/4-1/2 HILLSDALE, MI 49242

2199 ft.

Site 2 of 2 in cluster E

Relative: Lower

RCRIS:

Owner: NAME NOT REPORTED

Actual: (312) 555-1212 1087 ft. EPA ID: MID005037866

Contact: WENDELL BOHN

WENDELL BOHNER (517) 437-7331

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

LUST:

Facility ID: 00006228
Release Number: C-0256-93
Release Date: Feb 11 1993
Facility Status: Closed

District: Jackson District Office

Closed Date: Feb 28 1996 Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381 Contact : MARLYN MOON Facility Phone : (517) 439-9381

UST:

Facility ID: 00006228

Tank ID: 1

Owner: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Owner Phone: 517-439-9381

Product: WATER SOLUABLE COOLA

Capacity: 2200

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel

Piping Type: Suction: No Valve At Tank

Contact: MARLYN MOON Contact Phone: 517-439-9381

Impressed Device:No

Install Date: Jan 18 1976

Release Detection:

Tank: Not reported Pipe: Not reported

UST

LUST

#### MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

DAISY PARTS INC (Continued)

1000390547

1000292252

UST

LUST

MID982210445

F13 HILLSDALE CO ROAD COMMISSION

RCRIS-SQG 35 FERRIS ST **FINDS** 

1/4-1/2 HILLSDALE, MI 49242

2199 ft.

NNW

Site 1 of 2 in cluster F

Relative: Lower

RCRIS:

HILLSDALE CO RD COMM Owner:

(312) 555-1212 Actual: EPA ID: MID982210445 1089 ft.

Contact: ADAM MESAROSH

(517) 437-4458

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

LUST:

Facility ID: 00009460 Release Number: C-1684-92 Release Date: Sep 30 1992 Facility Status: Closed

District: Jackson District Office

Oct 27 1997 Closed Date: Owner Contact: Not reported

Hillsdale Co Road Comm Owner Name: Owner Address: 1919 Hudson Rd

Hillsdale, MI 49242

Country: USA

(517) 437-4458 Owner Phone:

Contact : STANLEY L. CLINGERMAN

Facility Phone: (517) 437-4458

00009460 Facility ID: Release Number: C-1685-92 Sep 30 1992 Release Date: Facility Status: Closed

District: Jackson District Office

Closed Date: Dec 12 2001 Owner Contact: Not reported

Owner Name: Hillsdale Co Road Comm Owner Address: 1919 Hudson Rd Hillsdale, MI 49242

Country: USA

Owner Phone: (517) 437-4458

Contact: STANLEY L. CLINGERMAN

(517) 437-4458 Facility Phone:

UST:

Facility ID: 00009460

Tank ID:

Hillsdale Co Road Comm Owner: Owner Address: 1919 Hudson Rd

Hillsdale, MI 49242

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s)

EPA ID Number

HILLSDALE CO ROAD COMMISSION (Continued)

Owner Phone: 517-437-4458
Product: Diesel
Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel, Unknown
Piping Type: Suction: No Valve At Tank
Contact: STANLEY L. CLINGERMAN

Contact Phone: 517-437-4458

Impressed Device:No

Install Date: Apr 18 1956

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00009460

Tank ID: 2

Owner: Hillsdale Co Road Comm Owner Address: 1919 Hudson Rd

Hillsdale, MI 49242

Owner Phone: 517-437-4458
Product: Gasoline,UNLEADED
Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Unknown
Piping Type: Not reported

Contact: STANLEY L. CLINGERMAN

Contact Phone: 517-437-4458

Impressed Device:No

Install Date: Apr 18 1956

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00009460

Tank ID: 3

Owner: Hillsdale Co Road Comm Owner Address: 1919 Hudson Rd

Hillsdale, MI 49242

Owner Phone: 517-437-4458
Product: Gasoline,REGULAR

Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel
Piping Material: Bare Steel, Unknown
Piping Type: Suction: No Valve At Tank
Contact: STANLEY L. CLINGERMAN

Contact Phone: 517-437-4458

Impressed Device:No
Install Date: Apr 19 1971

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00009460

Tank ID: 4

1000292252

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

HILLSDALE CO ROAD COMMISSION (Continued)

Owner: Hillsdale Co Road Comm Owner Address: 1919 Hudson Rd

Owner Address: 1919 Hudson Rd Hillsdale, MI 49242

500

Owner Phone: 517-437-4458 Product: Used Oil

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported

Contact: STANLEY L. CLINGERMAN

Contact Phone: 517-437-4458

Impressed Device:No

Install Date: Apr 18 1966

Release Detection:

Capacity:

Tank: Not reported Pipe: Not reported

F14 BEA S105767597 NNW 38 FERRIS ST N/A

NNW 38 FERRIS ST 1/4-1/2 HILLSDALE CITY, MI 2218 ft.

Site 2 of 2 in cluster F Relative:

Lower BEA:

Petition Disclosure:

Actual: BEA Number: 371 1089 ft. District: Jackson Date Received: 7/3/02

Submitter Name: City of Hillsdale Petition Determination: No Request

Category: No Hazardous Substance(s)

0

Determination 20107A: No Request Reviewer: katkov

Division Assigned: Environmental Response Division

Secondary Address: Not reported

15 BEA S105767610 NNW 90 EAST CARLETON ROAD N/A

NNW 90 EAST CARLETON ROAD 1/4-1/2 HILLSDALE TOWNSHIP, MI

2348 ft.

Relative: BEA:

Lower Petition Disclosure: 1
BEA Number: 247
Actual: District: Jackson

Actual: District: Jacksor 1081 ft. Date Received: 8/4/00

Submitter Name: United States Postal Service

Petition Determination: Affirmed

Category: No Hazardous Substance(s)

Determination 20107A: Affirmed Reviewer: temppm

Division Assigned: Environmental Response Division

Secondary Address: Not reported

1000292252

#### MAP FINDINGS

Map ID
Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

(Continued) S105767610

CONTOUR PLASTICS SHWS S103086234
29 SUPERIOR ST N/A

NE 29 SUPERIOR ST 1/4-1/2 HILLSDALE, MI 49242

2412 ft.

16

Relative: SHWS:

Higher Facility ID: 30000002

Facility Status: Interim Response in progress

 Actual:
 Source:
 null

 1098 ft.
 Pollutant(s):
 TCE

 SAM Score:
 35

SAM Score Date: 03/08/1996
Township: 06S
Range: 03W
Section: 26
Quarter: NE
Quarter/Quarter: SW

 17
 JONESVILLE CITGO INC
 UST
 U002301336

 South
 420 SOUTH M-99
 LUST
 N/A

1/4-1/2 JONESVILLE, MI 49250

2462 ft.

Relative: LUST:

Higher Facility ID: 00016851
Release Number: C-0547-91
Actual: Release Date: Apr 1 1991

1109 ft. Facility Status: Closed

District: Jackson District Office

Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc
Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone: (517) 849-7177
Contact: MR RICHARD H COPP

Facility Phone: (517) 437-3140

Facility ID: 00016851
Release Number: C-0193-92
Release Date: Feb 3 1992
Facility Status: Closed

District: Jackson District Office

Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc
Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone: (517) 849-7177 Contact: MR RICHARD H COPP

Facility Phone: (517) 437-3140

Facility ID: 00016851 Release Number: C-0197-92 Release Date: Feb 5 1992

Direction
Distance
Distance (ft.)
Elevation Site

Elevation Site Database(s)

EDR ID Number abase(s) EPA ID Number

U002301336

# JONESVILLE CITGO INC (Continued)

Facility Status: Closed

District: Jackson District Office
Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone: (517) 849-7177

Contact: MR RICHARD H COPP

Facility Phone: (517) 437-3140

Facility ID: 00016851
Release Number: C-0176-91
Release Date: Feb 6 1991
Facility Status: Closed

District: Jackson District Office

Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc
Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone: (517) 849-7177

Contact: MR RICHARD H COPP

Facility Phone: (517) 437-3140

Facility ID: 00016851
Release Number: C-2127-92
Release Date: Dec 1 1992
Facility Status: Closed

District: Jackson District Office

Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc
Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone : (517) 849-7177 Contact : MR RICHARD H COPP

Facility Phone: (517) 437-3140

Facility ID: 00016851
Release Number: C-2437-91
Release Date: Nov 13 1991
Facility Status: Closed

District: Jackson District Office

Closed Date: Oct 19 1995
Owner Contact: Not reported
Owner Name: Jonesville Citgo Inc
Owner Address: 420 S M-99

JONESVILLE, MI 49250

Country: USA

Owner Phone: (517) 849-7177 Contact: MR RICHARD H COPP

Facility Phone: (517) 437-3140

Direction Distance Distance (ft.)

EDR ID Number Elevation Site Database(s) **EPA ID Number** 

#### JONESVILLE CITGO INC (Continued)

U002301336

UST:

Facility ID: 00016851

Tank ID:

Jonesville Citgo Inc Owner:

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177 Product: Diesel

20000 Capacity:

Tank Status: Removed from Ground Asphalt Coated or Bare Steel Constr Material:

Piping Material: Galvani ed Steel Piping Type: Not reported

MR RICHARD H COPP Contact:

Contact Phone: 517-437-3140

Impressed Device:No Apr 21 1974 Install Date:

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ÍD:

Jonesville Citgo Inc Owner:

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177 Product: Gasoline 20000

Capacity: Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140 Impressed Device:No

Install Date: Apr 21 1974 Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 3

Owner: Jonesville Citgo Inc Owner Address: 420 S M-99

JONESVILLE, MI 49250

517-849-7177

Owner Phone: Product: 2 FUEL Capacity: 20000

Tank Status: Removed from Ground Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

MR RICHARD H COPP Contact:

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Apr 21 1974 Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

## JONESVILLE CITGO INC (Continued)

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 4

Owner: Jonesville Citgo Inc Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: 1 FUEL
Capacity: 15000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Apr 21 1974

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 5

Owner: Jonesville Citgo Inc

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: Gasoline
Capacity: 15000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Apr 21 1974

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 6

Owner: Jonesville Citgo Inc Owner Address: 420 S M-99

JONESVILLE, MI 49250 517-849-7177

Owner Phone: 517-849-7
Product: Gasoline
Capacity: 20000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

U002301336

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.) EDR ID Number
Elevation Site EDR ID Number
Database(s) EPA ID Number

JONESVILLE CITGO INC (Continued)

Contact Phone: 517-437-3140

Impressed Device:No
Install Date: Apr 21 1974

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 7

Owner: Jonesville Citgo Inc

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: 2 FUEL
Capacity: 20000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140 Impressed Device:No Install Date: Apr 21 1974

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 8

Owner: Jonesville Citgo Inc Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: Diesel
Capacity: 5000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Apr 21 1980

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00016851

Tank ID: 9

Owner: Jonesville Citgo Inc Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: Diesel
Capacity: 8000

Tank Status: Currently In Use
Constr Material: Epoxy Coated Steel

U002301336

Map ID MAP FINDINGS

Direction Distance Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

JONESVILLE CITGO INC (Continued)

Piping Material: Double Walled Piping Type: Pressure

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140

Impressed Device:No

Install Date: Apr 1 1991

Release Detection:

Tank: Automatic Tank Gauging

Pipe: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled

Piping, Interstitial Monitoring/Second Containment

Facility ID: 00016851 Tank ID: 10

Owner: Jonesville Citgo Inc

Owner Address: 420 S M-99

JONESVILLE, MI 49250

Owner Phone: 517-849-7177
Product: Gasoline
Capacity: 20000

Tank Status: Currently In Use
Constr Material: Epoxy Coated Steel
Piping Material: Double Walled

Piping Type: Pressure

Contact: MR RICHARD H COPP

Contact Phone: 517-437-3140

Impressed Device:No
Install Date: Apr 1 1991

Release Detection:

Tank: Automatic Tank Gauging

Pipe: Automatic Line Leak Detectors, Interstitial Monitoring Double Walled

Piping Interstitial Monitoring/Second Containment

18 FORMER LICENSED CITY LF

SSE WATERWORKS AVE / GRISWOLD ST

1/2-1 HILLSDALE, MI 49242

3313 ft.

Relative: SHWS:

Higher Facility ID: 30000004

Facility Status: Inactive - no actions taken to address contamination

Actual: Source: null

1116 ft. Pollutant(s): Domestic comm

SAM Score: 19
SAM Score Date: 04/19/1991
Township: 06S

Range: 03W Section: 35 Quarter: NE Quarter/Quarter: SW SHWS

S103594990

N/A

U002301336

MAP FINDINGS

Direction Distance Distance (ft.)

Map ID

**EDR ID Number** Elevation Database(s) **EPA ID Number** 

19 HILLSDALE RAILYARD SHWS S103595085

NNW MONROE AND HILLSDALE STREETS 1/2-1 HILLSDALE, MI 49242

3506 ft.

SHWS: Relative:

Facility ID: 30000197 Lower

Facility Status: Interim Response in progress

Actual: Source: null 1079 ft. Pollutant(s): Pb SAM Score: 29

11/10/1998 SAM Score Date:

Township: 68 Range: **3W** Section: 27 ΝE Quarter: Quarter/Quarter: ΝE

HILLSDALE GAS CO. Coal Gas G000001383 20 N/A

NW WEST OF RIVER ST., SOUTH OF PARK ST.

HILLSDALE, MI 49242 1/2-1

5084 ft.

Actual:

1069 ft.

COAL GAS SITE DESCRIPTION: Relative:

1906, Hillsdale City Gas Co. is located west of the end of River St. and south of the end or Lower

park St. Site is located northwest of Spring St. and south of the St. Joseph River. Site is bordered on the southwest by the L.S. and M.S. Railroad lines. 1922, called Hillsdale Light & Fuel Co. Gas Plant. 1928, called Central Michigan Utilities Co. Hillsdale Gas Plant.

1946, called National Utili ies Co. of Michigan Hillsdale Gas Plant - Coal Process.

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21 HILLSDALE IRON & METAL-MDEQ RCRIS-SQG 1001088761

WNW MIR000014480 80 GLENDALE AVE **FINDS** 1/2-1 HILLSDALE, MI 49242 SHWS **BEA** 

5168 ft.

RCRIS: Relative:

Owner: **BOREN BENNY** Higher (313) 961-2255 MIR000014480 EPA ID: Actual:

1104 ft. Contact: VICKI KATKO

(517) 780-7912

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

NY MANIFEST

Additional detail is available in NY MANIFEST. Please contact your EDR Account Executive for more information.

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

SHWS:

Facility ID: 30000042

Facility Status: Interim Response conducted - No further activities anticipated

Source: Scrap & Waste Materials

Pollutant(s): Pb; Zn; PCB's

SAM Score: 30 N/A

Map ID MAP FINDINGS
Direction

Distance
Distance (ft.)
Elevation Site

Database(s)

EDR ID Number EPA ID Number

1001088761

## HILLSDALE IRON & METAL-MDEQ (Continued)

SAM Score Date: 09/25/1991
Township: 06S
Range: 03W
Section: 27
Quarter: NW
Quarter/Quarter: NE

BEA:

Petition Disclosure: 0
BEA Number: 239
District: Jackson
Date Received: 6/5/00

Submitter Name: Edward Angellotti
Petition Determination: No Request

Category: No Hazardous Substance(s)

Determination 20107A: No Request Reviewer: temppm

Division Assigned: Environmental Response Division

Secondary Address: Not reported

#### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)	
HILLSDALE	S105852961	7 - 11 MOLBIL	M-99 / MANNING	49242	LUST	
HILLSDALE	S105144079	BILCOR PLASTICS	411 CARLTON	49242	SHWS	
HILLSDALE	1000289699	STILLWELL KEN FORD MERCURY INC	M99 HWY	49242	RCRIS-SQG, FINDS	
HILLSDALE	S103594997	KESSERLING, HOWARD 4	PERMIT 25301	49242	SHWS	
HILLSDALE	1003871901	HILLSDALE COAL GASIFICATION FAC	WEST STREET	49242	SHWS	
HILLSDALE	1006932092	HILLSDALE COAL GASIFICATION FAC	WEST STREET	49242	CERC-NFRAP	
JONESVILLE	S103086241	LUCAS LF/JONESVILLE GARBAGE SRVC	220 MAUCK RD	49242	SHWS	

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement

of the ASTM standard.

## FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03

Database Release Frequency: Semi-Annually

Date Made Active at EDR: 12/08/03 Elapsed ASTM days: 35 Date of Last EDR Contact: 11/03/03

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

NPL Site Boundaries

**EPA Region 1 EPA Region 6** 

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 **EPA Region 8** 

Telephone 215-814-5418 Telephone: 303-312-6774

**EPA Region 4** 

Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Source: EPA Telephone: N/A

> Date of Government Version: 10/14/03 Date of Data Arrival at EDR: 12/01/03

Date Made Active at EDR: 12/08/03 Elapsed ASTM days: 7

Database Release Frequency: Semi-Annually Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/24/03

Date of Data Arrival at EDR: 11/03/03

Elapsed ASTM days: 35

Date of Last EDR Contact: 09/24/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 09/24/03 Elapsed ASTM days: 35 Date of Last EDR Contact: 09/24/03

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/17/03 Date Made Active at EDR: 11/11/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 10/01/03

Elapsed ASTM days: 41

Date of Last EDR Contact: 09/08/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA

Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03 Date Made Active at EDR: 10/01/03 Database Release Frequency: Varies Date of Data Arrival at EDR: 09/11/03

Elapsed ASTM days: 20

Date of Last EDR Contact: 11/18/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous

substances.

Date of Government Version: 12/31/02 Date Made Active at EDR: 02/03/03 Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03

Elapsed ASTM days: 7

Date of Last EDR Contact: 10/27/03

## FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01 Database Release Frequency: Biennially Date of Last EDR Contact: 10/01/03

Date of Next Scheduled EDR Contact: 12/15/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 07/09/03 Date of Last EDR Contact: 10/08/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/05/04

DELISTED NPL: National Priority List Deletions

Source: EPA Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300,425.(e), sites may be deleted from the

NPL where no further response is appropriate.

Date of Government Version: 10/21/03 Date of Last EDR Contact: 11/03/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 01/05/04

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 08/11/03 Date of Last EDR Contact: 10/23/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

MLTS: Material Licensing Tracking System Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency,

EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 01/05/04

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 08/27/03 Date of Last EDR Contact: 10/01/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 12/29/03

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

TC1097745.4s Page GR-3

Date of Government Version: 10/15/91

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/21/03

Date of Next Scheduled EDR Contact: 02/23/04

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers

of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/30/03 Date of Last EDR Contact: 11/12/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-648-5920

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 04/01/03 Date of Last EDR Contact: 11/12/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 02/09/04

STORMWATER: Storm Water General Permits Source: Environmental Protection Agency

Telephone: 202 564-0746

A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A Date of Last EDR Contact: N/A

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: N/A

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 12/15/03

RMP: Risk Management Plans

Source: Environmental Protection Agency

Telephone: 202-564-8600

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A

Date of Last EDR Contact: N/A Database Release Frequency: N/A Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95 Date of Last EDR Contact: 09/08/03

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 12/08/03

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and

land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Annually

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Date of Government Version: 12/31/98 Date of Last EDR Contact: 09/02/03

Database Release Frequency: Every 4 Years Date of Next Scheduled EDR Contact: 12/08/03

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 10/16/03 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices

being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 10/20/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03 Database Release Frequency: Quarterly Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03

#### STATE OF MICHIGAN ASTM STANDARD RECORDS

SHWS: Contaminated Sites

Source: Department of Environmental Quality

Telephone: 517-373-9541

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/18/03 Date Made Active at EDR: 09/17/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 08/25/03 Elapsed ASTM days: 23 Date of Last EDR Contact: 11/24/03

SWF/LF: Solid Waste Facilities Database

Source: Department of Environmental Quality

Telephone: 517-335-4035

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/16/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 09/23/03 Elapsed ASTM days: 23 Date of Last EDR Contact: 10/27/03

LUST: Leaking Underground Storage Tank Sites Source: Department of Environmental Quality

Telephone: 517-373-8168

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 24 Date of Last EDR Contact: 09/15/03

UST: Underground Storage Tank Facility List Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/07/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 22 Date of Last EDR Contact: 09/15/03

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

Source: DEPT. OF ENVIRONMENTAL QUALITY

Telephone: 517-373-9541

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/16/03 Elapsed ASTM days: 23 Date of Last EDR Contact: 09/15/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 5 Telephone: 312-886-6136

Date of Government Version: 11/01/02 Date of Data Arrival at EDR: 11/12/02

Date Made Active at EDR: 12/04/02 Elapsed ASTM days: 22

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

HIST LF: Inactive Solid Waste Facilities
Source: Department of Environmental Quality

Telephone: 517-335-4034

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/97 Date of Data Arrival at EDR: 02/28/03

Date Made Active at EDR: 03/06/03 Elapsed ASTM days: 6

Database Release Frequency: No Update Planned Date of Last EDR Contact: 02/28/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 8 Telephone: 303-312-6137

Date of Government Version: 03/17/03 Date of Data Arrival at EDR: 03/31/03

Date Made Active at EDR: 04/17/03 Elapsed ASTM days: 17

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

## STATE OF MICHIGAN ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Tanks

Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Aboveground Storage Tanks.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 12/15/03

DEL SHWS: Delisted List of Contaminated Sites Source: Department of Environmental Quality

Telephone: 517-373-9541

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for

the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 11/24/03

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 02/23/04

PEAS: Pollution Emergency Alerting System Source: Department of Environmental Quality

Telephone: 517-373-8427

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents,

pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 10/04/03 Date of Last EDR Contact: 09/16/03

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: 01/05/04

#### EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

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The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### STREET AND ADDRESS INFORMATION

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## GEOCHECK\* - PHYSICAL SETTING SOURCE ADDENDUM

#### TARGET PROPERTY ADDRESS

EAGLEPICHER 135 E. SOUTH ST. HILLSDALE, MI 49242

## TARGET PROPERTY COORDINATES

Latitude (North): 41.915901 - 41° 54' 57.2" Longitude (West): 84.626404 - 84° 37' 35.1"

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 696846.1 UTM Y (Meters): 4642950.0

Elevation: 1092 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aguifers).

## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:

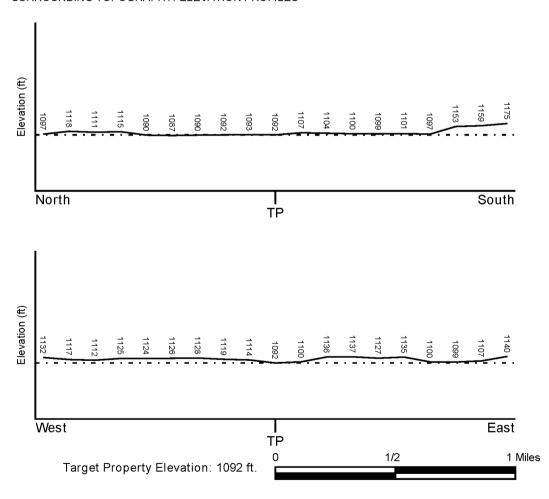
41084-H6 HILLSDALE, MI

General Topographic Gradient: General WNW

Source:

USGS 7.5 min quad index

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

Not Reported

FEMA FLOOD ZONE

FEMA Flood
Target Property County Electronic Data

HILLSDALE, MI Not Available

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

Flood Plain Panel at Target Property:

NWI Quad at Target Property
HILLSDALE

NWI Electronic
Data Coverage
Not Available

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

#### AQUIFLOW<sup>•</sup>

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

<sup>\* ©1996</sup> Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT** 

GEOLOGIC AGE IDENTIFICATION

Era: Paleozoic Category: Stratified Sequence

System: Mississippian

Series: Osagean and Kinderhookian Series
Code: M1 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: HOUGHTON

Soil Surface Texture: muck

Hydrologic Group: Class A/D - Drained/undrained hydrology class of soils that can be

drained and are classified.

Soil Drainage Class: Very poorly. Soils are wet to the surface most of the time. Depth to

water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information								
	Boundary			Classification				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)	
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50	
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50	

#### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand

loam sandy loam

gravelly - sandy loam

Surficial Soil Types: loamy sand

loam sandy loam

gravelly - sandy loam

Shallow Soil Types: sand

sandy loam clay loam silty clay loam cobbly - sandy loam gravelly - sandy clay loam

Deeper Soil Types: fine sand

gravelly - sand stratified loam

sand and gravel

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

No Wells Found

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID LOCATION FROM TP

1 MI0040181 1/4 - 1/2 Mile NW

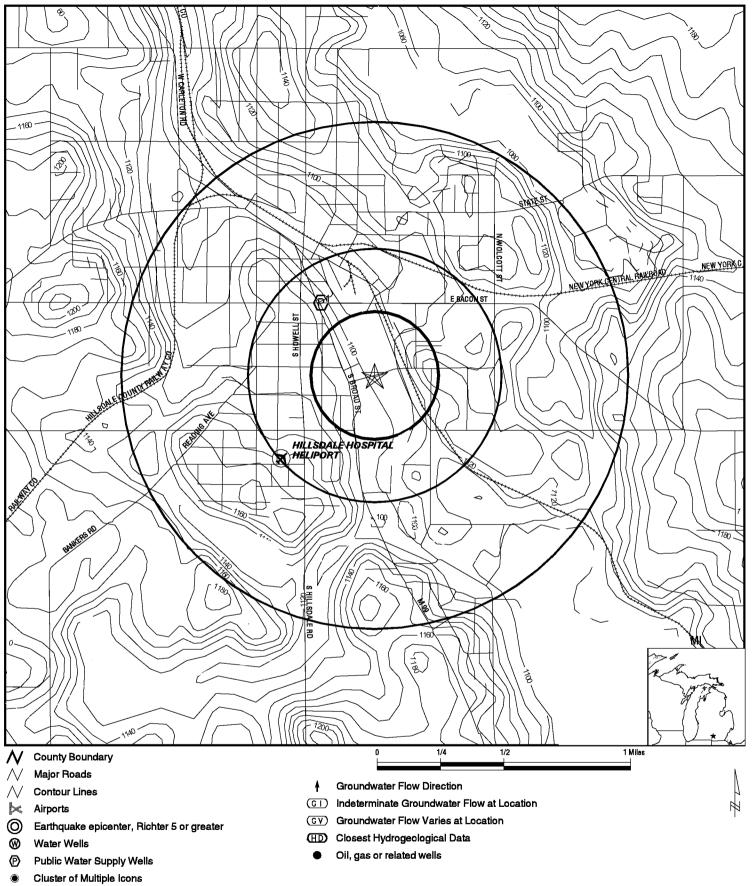
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

No Wells Found

## PHYSICAL SETTING SOURCE MAP - 1097745.4s



EaglePicher **TARGET PROPERTY: CUSTOMER:** Arcadis G & M ADDRESS: 135 E. South St. CONTACT: Dawn Sharvin Hillsdale MI 49242 CITY/STATE/ZIP: INQUIRY#: 1097745.4s 41.9159 / 84.6264 LAT/LONG:

DATE: December 11, 2003 7:06 pm

## GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance

Elevation Database EDR ID Number

NW FRDS PWS MI0040181 1/4 - 1/2 Mile

1/4 - 1/2 Mile Higher

PWS ID: MI0040181 PWS Status: Not Reported Date Initiated: Not Reported Date Deactivated: Not Reported

PWS Name: RAMBLEWOOD MOBILE HOME PARK

RAMBLEWOOD MOBILE HOME PARK

409 STATE ROAD HILLSDALE, MI 49242

Addressee / Facility: Not Reported

Facility Latitude: Not Reported Facility Longitude: Not Reported

City Served: Not Reported

Treatment Class: Untreated Population: 70

PWS currently has or had major violation(s) or enforcement: No

# GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
<del></del>	_						
Random	49242	0	2/21/88	0.6	28.6%		
Random	49242	0	2/3/88	3.6	8.4%		
Random	49242	0	2/26/88	4.1	7.5%		
Random	49242	0	12/2/87	6.0	7.2%		
Random	49242	0	1/8/88	32.8	2.0%		
Geographic	49242	0	3/20/88	7.1	5.0%		

## Federal EPA Radon Zone for HILLSDALE County: 1

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49242

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported
Basement	9.420 pCi/L	40%	40%	20%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM) Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS

1:24,000- and 1:25,000-scale topographic quadrangle maps.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

## ADDITIONAL ENVIRONMENTAL RECORD SOURCES

## FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STATE RECORDS

Water Well Data

Source: Department of Environmental Quality, Drinking Water and Radiological Protection Division

Telephone: 517-335-9218

Michigan Oil and Gas Wells

Source: Michigan Department of Natural Resources

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD),

Michigan Department of Natural Resources.

#### RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551 Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

## EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

## **ARCADIS**

Appendix C

Aerial Photographs



# The EDR-Aerial Photography Print Service

Eagle Picher 135 E. South Street Hillsdale, MI 49242

December 14, 2007

Inquiry # 1097745-7

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

# **Environmental Data Resources, Inc. Aerial Photography Print Service**

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2, page 12.)

## **Aerial Photographs**

\* Michigan aerials delivered via e-mail and in JPEG format are for <u>One Time Use Only</u>. Further reproductions of these aerial images are prohibited without permission from EDR. \*

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of local aerial photograph collections flown by state and federal agencies for the state of Michigan. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at ten year intervals.

Please call EDR Inc. Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report.

Thank you for your business!

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Inquiry: 1097745.7 Year: 1938 Flyer: AAA Scale: 1"= 555.6'



Inquiry: 1097745.7 Year: 1955 Flyer: CSS Scale: 1" = 555.6'



Inquiry: 1097745.7 Year: 1969 Flyer: ASCS Scale: 1"= 555.6'





Inquiry: 1097745.7 Year: 1983 Flyer: NHAP Scale: 1"= 690'



Inquiry: 1097745.7 Year: 1997 Flyer: FSA Scale: Unknown

## **ARCADIS**

Appendix D

Historic Topographic Maps



## The EDR-Historical **Topographic Map** Report

**EaglePicher** 135 E. South St. Hillsdale, MI 49242

December 17, 2003

Inquiry Number: 1097745-6

## The Source For Environmental **Risk Management** Data

3530 Post Road Southport, Connecticut 06490

**Nationwide Customer Service** 

Telephone: 1-800-352-0050 Fax: 1-800-231-6802

### **Environmental Data Resources, Inc. Historical Topographic Map Report**

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.2, the following standard historical sources may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2 page 11.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

#### Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

# Please call EDR Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report. Thank you for your business!

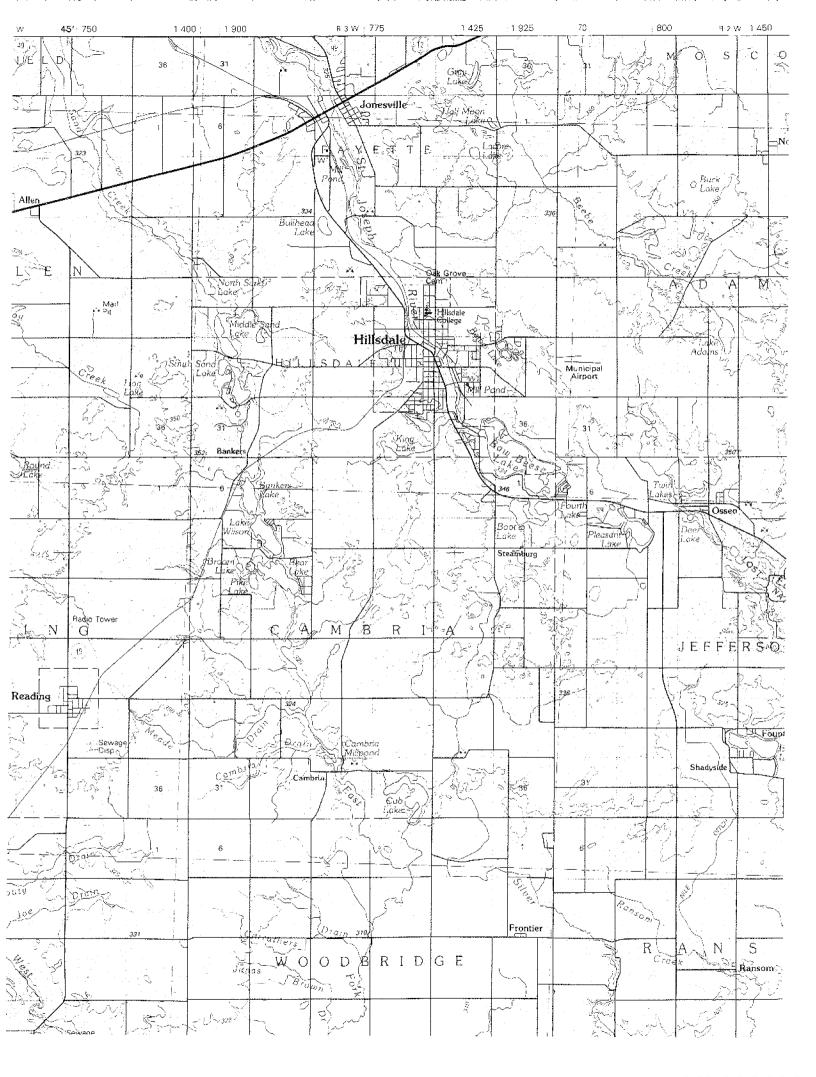
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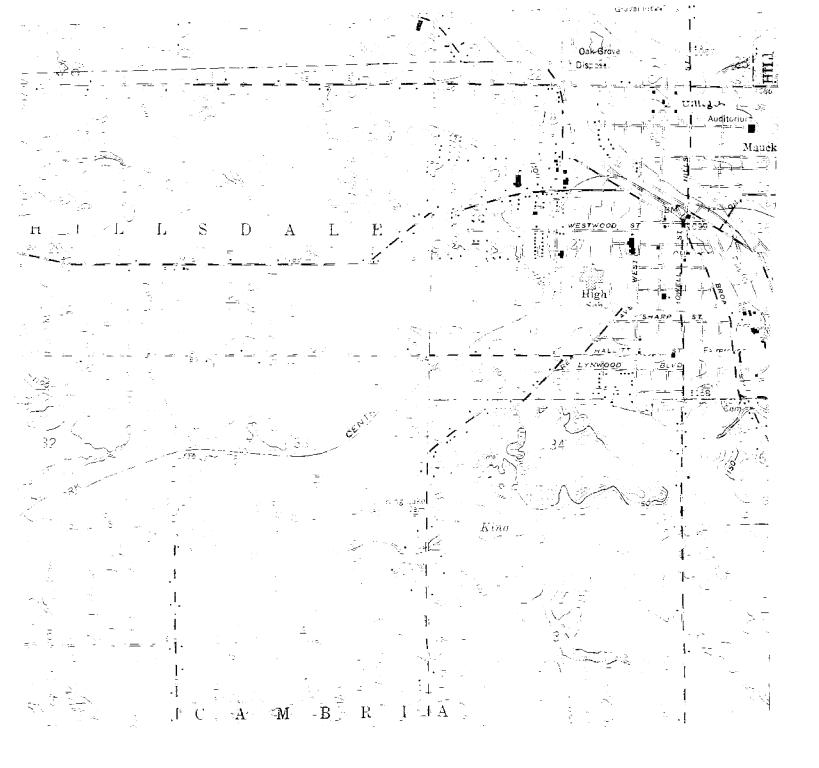


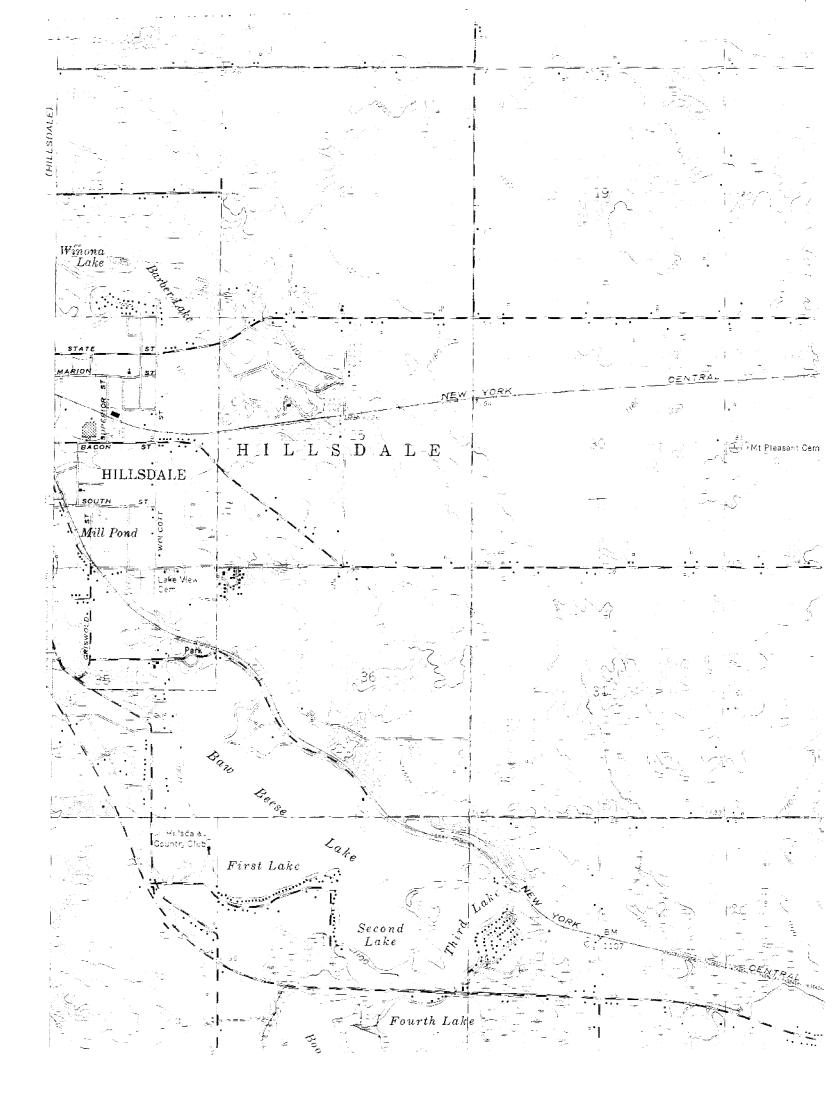
## Quadrangle Relation Chart

7.5 minute series Scale = 1: 24,000 

Target Quadrant	Adjoining Quadrant
(T	<b>₹</b>







## **ARCADIS**

Appendix E

Asbestos and Lead Building Inspection Report

#### ASBESTOS AND LEAD BUILDING INSPECTION REPORT

For the

Eagle Picher Facility 135 E. South Street Hillsdale, Michigan 49242

Investigation conducted by

Fibertec Industrial Hygiene Services, Inc. 1914 Holloway Drive Holt, Michigan 48842

Project # 18898-1

Project Date: March 8 and 9, 2004

Report Date: March 31, 2004

#### **Contents**

Introduction

Certification

**General Inspection Procedures** 

Results of Visual Inspection

**Bulk Sample Results** 

Summary of ACM Materials and Lead Paint

Conclusion

Recommendations

Cost Estimate

Appendices

- A. Mr. Luna's Asbestos Inspector Credentials
- B. Copy of Fibertec IHS NVLAP Certification
- C. Bulk Asbestos and Paint Sample Log
- D. Bulk Asbestos and Paint Sample Analytical Report
- E. Room by Room Asbestos and Paint Building Inspection Forms
- F. Photograph Log

#### ASBESTOS AND LEAD BUILDING INSPECTION REPORT

#### For the

Eagle Picher Facility 135 East South Street, Hillsdale, Michigan

Project #18898-1

#### **INTRODUCTION**

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by Arcadis G & M, Inc., to perform an asbestos and lead inspection within the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan. The project was discussed with Ms. Dawn Sharvin prior to beginning the fieldwork. The inspection was designed to identify asbestos and lead containing materials within the plant.

The building inspection took place on March 8 and 9, 2004. During the inspection, bulk samples of suspect asbestos-containing material (ACM) and suspect lead paint were collected. Collected asbestos bulk samples were submitted to the Fibertec IHS Polarized Light Microscopy (PLM) laboratory for analysis. Paint samples were submitted to the Fibertec, Inc. Analytical Laboratory for analysis.

#### **CERTIFICATION**

John Luna, a State of Michigan accredited asbestos building inspector, conducted the building inspection. Mr. Luna also maintains accreditation as an Asbestos Contractor/Supervisor. A copy of Mr. Luna's asbestos inspector credential appears in Appendix A.

John Walker, a trained polarized light microscopist, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory pursuant to the requirements of Environmental Protection Agency Method EPA/600/R-93/116. This laboratory maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0). A copy of the Fibertec IHS NVLAP accreditation certificate appears in Appendix B.

Jeri Haney, a trained laboratory chemist, analyzed all lead paint samples in the Fibertec, Inc. Analytical Laboratory pursuant to EPA Method 6020. The Fibertec, Inc. Analytical Laboratory is a proficient participant in the NIOSH/AIHA PAT Program (Metals Laboratory).

#### **GENERAL INSPECTION PROCEDURES**

In an effort to identify asbestos-containing material (ACM) and lead-containing paint in all areas of the plant, an extensive inspection procedure was followed. A visual inspection of all rooms in the facility was combined with the collection of an appropriate number and distribution of bulk samples, including samples of the roof area.

Determination of suspect asbestos-containing material was based on visual examination, bulk sample analysis, material age and professional experience. Specifically, materials similar in color and texture were classified into homogenous areas (*e.g.*, white, drywall). An appropriate number and distribution of bulk asbestos samples were collected from material in each homogenous area. All samples were analyzed by polarized light microscopy. When the results of analysis of all samples from a homogenous area indicate no asbestos present (less than or equal to one percent) the homogenous area is considered to be a non-asbestos containing material. When the results of analysis indicate asbestos present (in a quantity greater than one percent) in just one sample of those collected from a single homogenous area, the material in the entire homogenous area must be considered asbestos containing.

Destructive testing (*i.e.*, demolition) was not conducted as part of this asbestos building inspection. As such, quantities of ACM believed to exist in inaccessible areas (like pipe joint insulation and pipe hangers in wall cavities or above the plaster ceilings) have been estimated if necessary. Additionally, some asbestos-

containing material hidden from view may be present (e.g., floor leveling compound beneath floor tile and/or linoleum) and may not have been accounted for as part of this inspection.

Determination of lead paint was based on visual examination and bulk sample analysis. Specifically, a sample of each observed major paint color was collected pursuant to the requirements of ASTM Standard E1729-95 Standard Practice for Field Collection of Dried Paint Samples. All paint samples were submitted to the Fibertec, Inc. Analytical Laboratory, Holt, Michigan for analysis. When results indicate lead present at or above 0.5 weight percent, the paint is considered lead-based. When the results indicate lead present below 0.5 weight percent and at or above the detection limit, the paint is considered lead-containing. When the results indicate lead present below the method detection limit, the paint is considered non lead-containing.

#### RESULTS OF VISUAL INSPECTION

Based on the inspection, forty-eight distinct suspect asbestos-containing materials and seven major paint colors were identified in the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan. Some suspect asbestos-containing materials were sampled a number of times in different locations, drywall, being an example. All suspect asbestos-containing materials and suspect lead paint observed at the time of the inspection are listed in the Room by Room Asbestos and Lead Building Inspection Forms.

#### **BULK SAMPLE RESULTS**

The information gathered from the inspection is included in Appendices C (Bulk Asbestos and Paint Sample Log), D (Bulk Asbestos and Paint Sample Analytical Reports), E (Room by Room Asbestos and Lead Building Inspection Forms) and F (Photograph Log).

#### SUMMARY OF ASBESTOS-CONTAINING MATERIALS AND LEAD PAINT

The following materials were found to contain asbestos at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan:

Aircell pipe straight insulation Transite panel Braided white pipe wrap 9" x 9", cream floor tile and associated mastic Ceiling light heat shield Rust linoleum

The following materials were found not to contain asbestos at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan:

2' x 2', white rough texture drop ceiling tile

Drywall

Drywall joint compound

Tan cove molding and associated mastic

12" x 12", brown floor tile with 1/4" squares and associated mastic

Arrow pattern vinyl wall covering

Folded leaf pattern vinyl wall covering

Blue, red and brown small vertical horizontal line pattern vinyl wall covering

Maroon vinyl wall covering

Cream vinyl wall covering with squares and associated mastic.

Cork board and associated mastic

Red vinyl wall covering with blue vertical stripes

White vinyl wall covering

White sink undercoating

Gray sea shell pattern vinyl wall covering

Triangle and square pattern vinyl wall covering

2' x 4', white lay-in flat surface ceiling tile

Blue, brown and purple vertical streaked vinyl wall covering

Gray cove molding and associated mastic Vertical double sided arrow design vinyl wall covering Multi-colored streaked vinyl wall covering Black cove molding and associated mastic Gray linoleum and associated mastic Tan marble vinyl wall covering Maroon pick up sticks vinvl wall covering Thick vertical tan striped vinyl wall covering 2' x 4', white lay-in ceiling tile with smooth light texture Window glazing compound Dark brown cove molding and associated mastic 12" x 12", gray marble floor tile and associated mastic 12" x 12", tan floor tile with specks and associated mastic 2' x 4', white lay-in ceiling tile with pin holes and fissures Burlap pattern vinyl wall covering beneath drywall 12" x 12", white splined ceiling tile with fissures White floor tile and associated mastic Roof tar and rubber Silver exterior caulk Black door frame and window caulk Gray building and window caulk Dark brown exterior window caulk Tan exterior decorative building wall plaster

The following materials were assumed to contain asbestos at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan:

Fire doors and frames

The following paints were found to be lead-based (0.5% or greater lead by weight) at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan:

Red paint Yellow paint

The following paint was found to be lead-containing (less than 0.5% lead by weight) at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan:

Cream paint
Light blue paint over green
Cream paint over green
Gray paint over red (floor areas)
Dark green paint

No paints were found to be non lead-containing at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan.

#### **CONCLUSION**

Undamaged, friable asbestos containing pipe straight insulation, non-friable transite panel board, light heat shield, linoleum, 9" x 9" cream floor tile and associated mastic were found at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan. Damaged friable asbestos containing braided pipe wrap was also found at the Eagle Picher Facility, 135 East South Street, Hillsdale, Michigan.

All paints were found to contain some (detectable quantity) of lead. Two paints (yellow and red) were found to be lead-based (0.5% or greater lead by weight) paint.

This inspection, to determine the location of asbestos containing building materials and lead paint, was conducted in accordance with the inspection provisions of the Asbestos Hazard Emergency Response Act (AHERA 40 CFR, Part 763), the EPA Asbestos Sampling Bulletin dated September 30, 1994 and current industry standards.

#### RECOMMENDATIONS

Based on the information collected during this building inspection, the following recommendations are offered. These recommendations may have to be adjusted if change of ownership, emergency, or other factors alter the condition, use or planned use of the building.

Perform the following in this case:

- Notify the owner, employees, building maintenance staff, contractors and others who may encounter ACM during the routine execution of their job assignments of the presence, location, quantity and condition of the asbestos containing, pipe straight insulation, braided pipe wrap, transite panel board, light heat shield, rust linoleum, 9" x 9", cream floor tile and associated mastic, fire doors and frames and lead paint. Ensure that contractors who work in the vicinity of or who may encounter potentially hazardous materials during the course of their work have successfully completed hazard awareness training. Ensure that contractors who work in the vicinity of or who may disturb the asbestos containing materials and/or the lead paint, do so pursuant to the requirements of the Asbestos in Construction Standard 29 CFR 1926.1101 and the Lead in Construction Standard 29 CFR 1926.62.
- Given the damaged condition of visible, accessible asbestos-containing pipe wrap insulation in the Bay 3 area, remove it and replace with a non-asbestos replacement product.
- Given the undamaged condition of visible accessible asbestos-containing pipe straight insulation, light heat shield, transite panel board, rust linoleum, 9" x 9", cream floor tile and associated mastic and fire doors and frames in all other areas of the plant, manage them in place until such time as the ACM requires replacement (through damage or renovation), at which time, remove them and, if warranted, replace them with a non-asbestos replacement product.
- In the event of building renovation or demolition, remove asbestos-containing materials from areas where they will be disturbed if renovation or demolition occurs. Ensure that the demolition contractor controls the dust generated from activities (e.g., demolition), which might generate lead dust and control lead exposure to within regulatory limits, as required by the Lead in Construction Standard 29 CFR 1926.62.
- Conduct on-site air monitoring during asbestos removal and lead-containing painted surface
  demolition and other lead paint disturbance activities to document compliance with applicable
  regulations and to document acceptable air quality following the work. Ensure that employees
  have proper training and comply with all the provisions of the Asbestos and Lead in
  Construction Standards 29 CFR 1926.1101 and 29 CFR 1926.62, respectively.
- Apply labels indicating material contains asbestos fibers avoid creating dust cancer and lung disease hazard, above drop ceiling near or on the pipe straight insulation.

#### **COST ESTIMATE**

A cost estimate to conduct the removal of damaged asbestos-containing material is provided in Table 1. The cost to remove all remaining identified asbestos-containing material is estimated in Table 2.

TABLE 1
ESTIMATED COST TO REMOVE DAMAGED ASBESTOS CONTAINING
PIPE JOINT AND PIPE STRAIGHT INSULATION

RECOMMENDED ACTION	UNITS	UNIT COST	ESTIMATED COST*		
Remove braided pipe wrap insulation	125 l.f.	\$20.00/l.f.	\$2,500.00		
Air monitoring during asbestos removal	2 days	\$600.00/day	\$1,200.00		

GRAND ESTIMATED TOTAL

\$3,700.00

## TABLE 2 ESTIMATED COST TO REMOVE REMAINING ASBESTOS CONTAINING MATERIALS AND CONTROL OF LEAD PAINT

Remove transite panel board	165 s.f.	\$7.00/s.f.	\$1,155.00
Remove pipe straight insulation	193 l.f.	\$20.00/l.f.	\$3,860.00
Remove light heat shield	1 ct.	\$20.00/each	\$20.00
Remove linoleum and associated mastic	104 s.f.	\$5.00/s.f.	\$520.00
Remove 9" x 9" cream floor tile and associated mastic (may be hidden in other areas beneath carpet or linoleum)	48 s.f.	\$3.00/s.f.	\$144.00
Remove fire doors and frames	19 ct.	\$225.00/each	\$4,275.00
Air monitoring during asbestos removal	10 days	\$65.00/hour	\$5,200.00

GRAND ESTIMATED TOTAL

\$15,174.00

The cost estimates are based on the findings of this inspection, current industry prices and current interpretation of the existing regulations. It is assumed that the work is performed by licensed, competent organizations. Estimates include all costs of abatement projects, except replacement. Estimated cost is based on project size, difficulty, access, and power and water being provided by the owner. No cost to address potential lead exposure monitoring during demolition has been provided. Should demolition or renovation be planned, an estimate can be provided when demolition/renovation plans are known.

John Luna Michigan Accredited Asbestos Inspector

> A4665 Card #

Phillip A. Peterson Vice President

DATE:	3/8/2	2004	. BUILDING:	Eagle Pich	ner, 135 E. South Stree	t, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
1	1,148 s.f.	MM	U	F	N	N	3	Main entrance, entryway.
HA DESCRIF	PTION:			1	NOTES:	N	4	Main lobby, restroom.
	2' x 2', white r	rough texture	drop ceiling tile	1.				
2	35,089 s.f.	MM	U	NF	N	N	11	South hallway, west of lobby reception area.
LIA DECODIE			<u> </u>		NOTEO	N	12	NW office area, east north/south hallway.
HA DESCRIF	TION:				NOTES:	N	13	West office area, off west north/south hallway.
	Drywall.							
	,							
3	17,545 s.f.	MM	U	NF	N	N	14	South hallway, west of lobby area.
				<u> </u>		N	15	NW office area, east north/south hallway.
HA DESCRIF	PTION:				NOTES:	N	16	West office area, west north/south hallway.
	Denough in inte							
	Drywall joint of	compound.						
4	0.404 - £	ММ	U	NF	, ,	N	7	Maria labela, acadas ana
4	2,434 s.f.	IVIIVI		INF	N	N N	8	Main lobby, restroom.  SW entrance way of south hallway.
HA DESCRIF	PTION:		<u> </u>		NOTES:		-	,
	Tan cove mol	ding and asso	ociated mastic.		Mastic is also non			
					asbestos-containing			
5	128 s.f.	MM	U	NF	N	N	1	Main entrance, entryway.
HA DESCRIF	PTION:		<u> </u>		NOTES:	N	2	Main lobby, restroom.
I I/ DEGORII	11014.				140120.			
	12" x 12", bro	wn floor tile w	ith 1/4" square	s				
	and associa	ated mastic.						
6	1,824 s.f.	ММ	U	NF	N	N	17	NW office, Sales/Marketing area.
==						N	18	NE office, Sales/Marketing area.
HA DESCRIF	PTION:				NOTES:			
	Arrow pattern	vinyl wall cov	erina.					
	pattorn	,						

DATE:	3/8/	2004	BUILDING.	Eagle Pici	ner, 135 E. South Stree	t, Hilisdale	INSPECTOR.	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
7	6,152 s.f.	MM	U	NF	N	N	19	South hallway, west of main lobby.
						Ν	20	Reception area, south hallway, center.
HA DESCRIF	PTION:				NOTES:			
	Folded leaf pa	attern vinyl wa	II covering.					
8	440 s.f.	MM	U	NF	N	N	9	Main lobby, restroom, NE corner.
						N	10	Main lobby, restroom, SW corner.
HA DESCRIF	PTION:				NOTES:			
	Blue, red, bro	wn small verti	cal horizontal I	ine				
	pattern viny	l wall covering	<b>]</b> .					
9	448 s.f.	MM	U	NF	N	N	21	Executive office in south hallway, off main lobby, SE corner.
						N	22	Executive office in south hallway, off main lobby, NW corner.
HA DESCRIF	PTION:				NOTES:			
	Maroon vinyl	wall covering.						
10	7 222	1414		NIE.	N	N	22	OF server of Color Mandacking areas
10	7,332	MM	U	NF	N	N N	23	SE corner of Sales/Marketing, open area.  NW corner of Sales/Marketing, open area.
HA DESCRIF	PTION:				NOTES:	IN	24	1000 Corner of Galeshvarketing, open area.
I IA DEGUNII	TION.				NOTES.			
	Cream vinvl v	vall covering v	vith squares an	nd				
	associated		nin oqualoo an					
11	193 l.f.	TSI	U	F	Υ	Υ	25	South hallway, men's restroom.
						N/A	26	South hallway, in front of center reception area.
HA DESCRIF	PTION:				NOTES:	N/A	27	Center of east hallway, above ceiling in Mech. Department.
	Aircell pipe st	raight insulation	on.					
12	169	MM	D	F	N	N	28	SE corner office, south wall of Quality Control Area.
	<u></u>					N	29	NW corner of east north/south hallway, above ceiling.
HA DESCRIF	PITON:				NOTES:			
	0.11				[ <b></b>			
	Cork board a	nd associated	mastic.		Mastic is also non			
					asbestos-containing			
						$\vdash$		
					<u> </u>			

DATE:	3/8/2	2004	BUILDING:	Eagle Pic	her, 135 E. South Stree	t, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
					, , , , , , , , , , , , , , , , , , , ,			
13	824 s.f.	MM	U	NF	N	N	30	SW corner office, off south hallway, NE corner.
LIA DEGODIS	TION!				NOTES	N	31	SW corner office, off south hallway, SW corner.
HA DESCRIF	PHON:				NOTES:			
	Red vinyl wal	I covering with	blue vertical s	stripes.				
14	992 s.f.	MM	U	NF	N	N	32	Training room off center kitchenette.
						N	33	West executive office, south wall, center.
HA DESCRIF	PTION:				NOTES:			
	3000							
	White vinyl w	all covering.						
15	165 s.f.	MM	U	NF	Y	Y N/A	34 35	SW office, above ceiling in south hallway. SW sprinkler room, above ceiling.
HA DESCRIF	PTION:				NOTES:	IN/A	33	Svv sprinker room, above ceiling.
	Transite pane	el.						
16	2 ct.	MM	U	NF	N	N	36	Kitchenette area, center.
						N	37	Reception area off south hallway, center.
HA DESCRIF	PTION:				NOTES:			
	White sink un	deregating						
	vville silik uli	dercoating.						
17	260 s.f.	ММ	U	NF	N	N	38	Women's restroom off central kitchenette area, NE corner.
l ''	200 3.1.	IAIIAI		1 11		N	39	Women's restroom off central kitchenette area, NE corner.
HA DESCRIF	PTION:				NOTES:			
	Gray sea she	ll pattern vinyl	wall covering.					
18	1,504 s.f.	MM	U	NF	N	N	40	Finance Department, NW office.
HA DESCRI	I DTION:				NOTES:	N	41	Finance Department, NE office.
HA DESCRIF	- HON:				NOTES:			
	Triangle and	square patterr	vinyl wall cov	ering.				
	•			=				
						$oxed{\Box}$		
						<b>—</b>		

DATE.	3/0/.	2004	BUILDING.	Lagie i ici	ilei, 133 E. Soutii Stree	t, i iliodale	INOI LOTOIN.	JOHN Luna
	TOTAL		MATERIAL		MATERIAL	ASBESTOS DETECTED*	SAMPLE	
HA#	FOOTAGE	TYPE	CONDITION	F/NF	ACM (Y/N)	(Y/N)	#	SAMPLE LOCATION
19	200 s.f.	MM	U	F	N	N	42	Computer room, center.
						N	43	Computer room, SE area.
HA DESCRIF	PTION:				NOTES:			
	2' x 4', white I	lay-in flat surfa	ce ceiling tile.					
20	3,150 s.f.	MM	U	NF	N	N	44	Quality Design Area, SE office.
20	0,100 3.1.	IVIIVI		141	1	N	45	Quality Design Area, NW corner.
LIA DESCOIE	OTION!	l			NOTES:	IN	40	Quality Design Area, NW comer.
HA DESCRIF	PHON:				NOTES:			
		purple vertical	streaked viny	l wall				
	covering.							
						ļļ		
						$\sqcup$		
21	326 s.f.	MM	U	NF	N	N	46	SE office of north central entrance to manufacturing area.
						N	47	SW corner of Quality/Design area.
HA DESCRIF	PTION:				NOTES:			
	Gray cove mo	olding and ass	ociated mastic	).	Mastic is also non			
	•	-			asbestos-containing			
22	500 s.f.	MM	U	NF	N	N	48	Quality/Design area, NE corner, SW office.
22	500 S.I.	IVIIVI	U	INF	IN IN	N	49	Quality/Design area, SW corner, SW office.
HA DESCRIF	OTION!				NOTEO	IN	49	Quality/Design area, Svv corner, Svv onice.
HA DESCRIP	TION.				NOTES:			
		le sided arrow	design vinyl w	vall				
	covering.							
23	2,752 s.f.	MM	U	NF	N	N	50	Environmental Manager's Office, SW corner.
						N	51	SE office, center N. entrance, Manufacturing area, SW corner.
HA DESCRIF	PTION:				NOTES:			
	Multi-colored	streaked vinyl	wall covering.					
		•						
24	51 s.f.	MM	U	NF	N	N	52	SW office of north east/west hallway, NW corner.
-4	0 , 3.1.	141141		1 11		N	53	SW office of north east/west hallway, NV comer.
HA DESCRIF	DTION!	<u> </u>	1		NOTES:	IN		onice of north easywest hallway, SE COHEL.
I IM DEOURIH	TION.				INOTES.	<del>                                     </del>		
	Disel	arata y		_		$\vdash$		
	Black cove m	loiding and ass	sociated masti	C.				
						$\vdash$		

DATE.	3/0/.	2004	, BUILDING.	Lagle Fic	ilei, 133 E. Soutii Stree	it, i illisuale	INSELCTOR.	JUIII Lulia
	TOTAL	MATERIAL	MATERIAL		MATERIAL	ASBESTOS	SAMPLE	
HA#	TOTAL FOOTAGE	TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
10.00	1 00 17 02		00115111011	1711	1	(17.1)		J. VIII 22 200, VIIO IV
25	536 s.f.	ММ	U	NF	N	N	54	North entrance way to Manufacturing area, SE room.
20	000 3.1.	141141		141		N	55	North entrance way to Manufacturing area, NW room.
HA DESCRIF	PTION:				NOTES:	11		I votal character way to manuacturing area, 1997 foom.
I I ( BLOCKII	11014.				140 120.			
	Gray linelour	n and associat	od mastio		Mastic is also non			
	Gray Illioleum	i aliu associal	eu masiic.		asbestos-containing			
					aspesios-containing			
26	320 s.f.	MM	U	NF	N	N	56	NW corner office, west of men's restroom, off north hall.
						N	57	SE corner office, west of men's restroom, off north hall.
HA DESCRIF	PTION:				NOTES:			
	Tan marble v	inyl wall cover	ing.					
L					<u> </u>			
27	624 s.f.	MM	U	NF	N	N	58	Far NW corner of NW office, off east north/south hallway.
			_			N	59	Far NW corner of NW office, off east north/south hallway.
HA DESCRIF	PTION:				NOTES:			,
I I ( BLOCKII	11014.				140 120.			
	Maroon nick	up sticks vinyl	wall covering					
	Maroon pick	up sticks viriyi	wan covering.					
					l			<u></u>
28	532 s.f.	MM	U	NF	N	N	60	West side of east north/south hallway, NE corner
						N	61	West side of east north/south hallway, SW corner
HA DESCRIF	PTION:				NOTES:			
	Thick vertical	tan striped vir	nyl wall coverir	ng.				
29	264 s.f.	MM	U	F	N	N	62	Tool room, Bay 2 area, NE corner.
						N	63	Tool room, Bay 2 area, SW corner.
HA DESCRIF	PTION:				NOTES:			
	2' x 4', white I	lay-in ceiling ti	le with smooth	light				
	texture.	3						
30	125 l.f.	TSI	D	F	Y	Υ	64	Bay 3, open area, NE corner.
- 55	, 20 1.1.			<u>'</u>	· '	N/A	65	Bay 3, open area, north center.
HA DESCRIF	PTION!				NOTES:	N/A	66	Bay 3, open area, SWcorner.
I IA DESCRIP	I IOIN.				INOTES.	IN/A	00	рау о, орен атеа, очисоптет.
	Droided 4-7	nino						
	Braided white	e pipe wrap.				$\vdash$		<del> </del>
						$\vdash$		

DATE:	3/8/2	2004	BUILDING:	Eagle Pic	ner, 135 E. South Stree	t, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
31	13 ct.	ММ	D	NF	N	N	67	Bay 5, east windows, north side.
31	15 Ct.	IVIIVI	В	INI	IN	N	68	Bay 5, east windows, north side. Bay 5, east windows, south side.
HA DESCRIF	PTION:				NOTES:			
	Window glazi	ng compound						
32	53 s.f.	MM	U	NF	N	N	60	Shinning area NNA/office SE comer
32	55 S.I.	IVIIVI	U	INF	IN	N	69 70	Shipping area, NW office, SE corner. Shipping area, NW office, SW corner.
HA DESCRIF	PTION:				NOTES:			
	Dark brown c	ove molding a	nd associated	mastic	Mastic is also non			
					asbestos-containing			
33	400 s.f.	MM	U	NF	N	N N	71 72	Product storage area, NE office, NE corner. Product storage area, NE office, NW corner.
HA DESCRIF	PTION:				NOTES:	11	7.2	r reader storage area, NE amoe, NV comer.
	12" x 12", gra mastic.	y marble floor	tile and assoc	eiated	Mastic is also non asbestos-containing			
					3			
34	192 s.f.	ММ	U	NF	N	N	73	Shipping area, NW office, SW corner.
HA DESCRIF	PTION:				NOTES:	N	74	Shipping area, NW office, SE corner.
I I V BEGGIVII	TION.				NO TEO.			
		floor tile with	specks and as	sociated	Mastic is also non			
	mastic.				asbestos-containing			
35	48 s.f.	MM	U	NF	Y	Υ	5	Main lobby, restroom, SE corner.
						N/A	6	Main lobby, restroom, SE corner.
HA DESCRIF	PTION:				NOTES:			
	9" x 9", cream	n floor tile and	associated ma	astic.	Mastic is also			
					asbestos-containing			
	10 107 1						7.	Could be the course of the cou
36	18,197 s.f.	MM	U	F	N	N N	75 76	South hallway, west of lobby reception area.  North entrance way to manufacturing area.
HA DESCRIF	PTION:	-			NOTES:			
	انتخاص الاین	av in soilise *	lo with him hel-	ne.				
	2' x 4', white I and fissures		e with bill 11016	53				

DATE:	3/8/	2004	. BUILDING:	Eagle Pici	ner, 135 E. South Stree	t, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
37	26,000 s.f.	MM	U	NF	N	N	77	South end of south hallway, west of lobby area.
						N	78	North end of south hallway, west of lobby area.
HA DESCRIP	PTION:				NOTES:			
	Burlap pattern	n vinyl wall co	vering beneath	drywall.				
38	1 ct.	MM	U	NF	Y	Υ	79	Exec. Office in south hallway, off main lobby, closet.
30	I CL.	IVIIVI	U	INF	T			
LIA DEGODIE	TION				NOTEO	N/A	80	Exec. Office in south hallway, off main lobby, closet.
HA DESCRIP	TION:				NOTES:			
	Ceiling light h	eat shield.						
39	45 s.f.	MM	U	F	N	N	81	Exec. Office in south hallway, off main lobby, bathroom.
						N	82	Exec. Office in south hallway, off main lobby, bathroom.
HA DESCRIP	TION:				NOTES:			
	12" x 12" wh	ite splined ceil	ing tile with fis	sures				
			g allo marillo					
40	404 6							
40	104 s.f.	MM	U	NF	Y	Υ	83	Telecommunication room in Sales/Marketing area, NE corner.
						N/A	84	Telecommunication room in Sales/Marketing area, SW corner.
HA DESCRIP	PTION:				NOTES:			
	Rust linoleum	1.						
41	500 s.f.	MM	U	NF	N	N	85	Center hallway.
					<u> </u>	N	86	Center hallway.
HA DESCRIP	PTION:				NOTES:			
	White floor tile	e and associa	ted mastic.		Mastic is also non			
					asbestos-containing			
42	64,000 s.f.	MM	U	NF	N	N	87	SE end of roof area.
44	04,000 5.1.	IVIIVI		INI.				SW end of roof area.
UA DECODIO	TION!			1	NOTES:	N	88	OVV end of 1001 area.
HA DESCRIP	TION:				NOTES:			
	5 (1	1.1						
	Roof tar and	rubber.						

DATE.	3/0/.	2004	. DOILDING.	Lagie i ic	ilei, 133 E. Soulii Sile	et, i illisaale	INSELCTOR.	JOHN Luna
						ASBESTOS		
	TOTAL		MATERIAL	EA IE	MATERIAL	DETECTED*	SAMPLE	CAMPLE LOCATION
HA#	FOOTAGE	TYPE	CONDITION	F/NF	ACM (Y/N)	(Y/N)	#	SAMPLE LOCATION
40	40.15			N. I.			00	Estados nos la efecto na esta
43	40 l.f.	MM	U	NF	N	N	89	Exterior gas heating unit.
LIA DECODIE	OTION!				NOTEO	N	90	Exterior gas heating unit.
HA DESCRIF	PHON:				NOTES:			
	011							
	Silver exterior	r caulk.						
44	80 l.f.	MM	U	NF	N	N	91	Door frame, main labby
44	60 I.I.	IVIIVI	U	INF	IN IN	N	92	Door frame, main lobby. Outside entrance to building.
HA DESCRIF	DTION!				NOTES:	111	32	Outside entrance to building.
HA DESCRIP	- I ION.				NOTES.			
	Black door fro	ame and windo	w caulk					
	DIACK GOOT ITS	ane and wind	ow caulk.					
						$\vdash$		
					<del> </del>			
45	350 l.f.	ММ	U	NF	N	N	93	SW corner, exterior of building.
75	330 1.1.	191191	Ŭ	1 11	14	N	94	SE corner, exterior of building.
HA DESCRIF	PTION:				NOTES:		0-1	or building.
I I ( BLOCKII	11014.				110120.			
	Grav building	and window o	aulk					
	Oray ballaling	ana winaow c	aun.					
46	300 l.f.	ММ	U	NF	N	N	95	SE exterior window.
, ,					"	N	96	SW exterior window.
HA DESCRIF	PTION:				NOTES:			
	Dark brown e	xterior window	/ caulk.					
47	3,030 s.f.	ММ	U	NF	N	N	97	NE outdoor wall.
						N	98	NW exterior wall.
HA DESCRIF	PTION:				NOTES:	N	99	South, center exterior wall.
						N	100	SE center wall.
	Tan exterior of	decorative buil	ding wall plast	er.		N	101	SW exterior wall.
48	19 ct.	MM	U	NF	Assumed	Assumed	Unsampled	
HA DESCRIF	PTION:				NOTES:			
	Fire door and	I frame.						

#### PAINT SAMPLE LOG

DATE:	3/8/2004	BUILDING: Eagle Pic	her, 135 E. South Stree	t, Hillsdale	INSPECTOR:	John Luna
			MATERIAL	LEAD		
110.44	MATERIAL	MATERIAL	LEAD-CONTAINING		SAMPLE	CAMPLE LOCATION
HA#	TYPE	CONDITION	(Y/N)	(Y/N)	#	SAMPLE LOCATION
1	Paint	Undamaged	Y	Υ	PB-01	Office area.
HA DESCRIF	PTION:		NOTES:			
	Cream paint over drywall.					
2	Paint	Undamaged	Y	Υ	PB-02	Sprinkler system (main).
2	ı allıt	Ondamaged	'		1 0-02	Ophiliker system (main).
LIA DEGODIE	TION!		NOTEO			
HA DESCRIF	PHON:		NOTES:			
	Red paint.					
	1,180 l.f.					
3	Paint	Undamaged	Y	Υ	PB-03	Bay 2, support beams and gas lines.
, and		oaaagea	·	·	. 2 00	Expert south and gas into.
HA DESCRIF	DTIONI:	<u> </u>	NOTES:			
HA DESCRIF	TION.		NOTES.			
	Yellow paint.					
	3,945 s.f.					
4	Paint	Undamaged	Υ	Υ	PB-04	Bay 2, center wall.
HA DESCRIF	PTION:		NOTES:			
	Light blue paint over light gr	reen.				
5	Paint	Undamaged	Y	Υ	PB-05	Bay 4 area.
	ı allıt	Gnaamagea	[	<u>'</u>	1 15-03	bay = area.
HA DESCRIF	PTION:		NOTES:			
LA DESCKIL	TION.		INUTES:			
	•					
	Cream paint over green.					
6	Paint	Undamaged	Υ	Υ	PB-06	Quality office area.
HA DESCRIF	PTION:	-	NOTES:			
22301111						
	Gray paint over red.					
	Gray paint over reu.					
			<u> </u>			

#### PAINT SAMPLE LOG

DATE:	3/8/2004	BUILDING: Eagle Pich	ner, 135 E. South Stree	t, Hillsdale	INSPECTOR:	FOR: John Luna		
			MATERIAL	LEAD				
	MATERIAL	MATERIAL	LEAD-CONTAINING		SAMPLE			
HA#	TYPE	CONDITION	(Y/N)	(Y/N)	#	SAMPLE LOCATION		
7	Paint	Undamaged	Υ	Υ	PB-07	Bay 4 area.		
		9				,		
HA DESCRIP	TION:		NOTES:					
	Dark green paint							
HA DESCRIP	TION <sup>.</sup>		NOTES:					
, , , , , , , , , , , , , , , , , , ,			110 120.					
HA DESCRIP	TION:		NOTES:					
I IA DEGCINII	HON.		NOTES.					
HA DESCRIP	TIONI		NOTES:					
HA DESCRIP	TION:		NOTES:					
<del>                                     </del>								
LIA DECODE	TION		NOTEC					
HA DESCRIP	TION:		NOTES:					
HA DESCRIP	TION:		NOTES:					



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
1	1	12" X 12", BROWN FLOOR TILE WITH 1/4" SQUARES, MAIN ENTRANCE, ENTRYWAY, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
1	1	BROWN MASTIC ON 12" X 12", BROWN FLOOR TILE WITH 1/4" SQUARES, MAIN ENTRANCE, ENTRYWAY, LAYER 2 OF 2.	N			JAW	92% NON-FIBROUS MATTER 8% CELLULOSE
2	2	12" X 12", BROWN FLOOR TILE WITH 1/4" SQUARES, MAIN LOBBY, RESTROOM, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
2	2	BROWN MASTIC ON 12" X 12", BROWN FLOOR TILE WITH 1/4" SQUARES, MAIN LOBBY, RESTROOM, LAYER 2 OF 2.	N			JAW	94% NON-FIBROUS MATTER 6% CELLULOSE
3		2' X 2', WHITE ROUGH TEXTURE DROP CEILING TILE, MAIN ENTRANCE, ENTRYWAY.	N			JAW	60% FIBROUS GLASS 40% NON-FIBROUS MATTER

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510
FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
4	4	2' X 2', WHITE ROUGH TEXTURE DROP CEILING TILE, MAIN LOBBY, RESTROOM.	N			JAW	55% FIBROUS GLASS 45% NON-FIBROUS MATTER
5	5	9" X 9", CREAM FLOOR TILE, MAIN LOBBY, RESTROOM, SE CORNER, LAYER 1 OF 2.	Y	CHRYSOTILE	4%	JAW	96% NON-FIBROUS MATTER
5	5	BLACK MASTIC ON 9" X 9", CREAM FLOOR TILE, MAIN LOBBY, RESTROOM, SE CORNER, LAYER 2 OF 2.	Y	CHRYSOTILE	2%	JAW	98% NON-FIBROUS MATTER
7	7	TAN COVE MOLDING, MAIN LOBBY, RESTROOM, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
7	7	BROWN MASTIC ON TAN COVE MOLDING, MAIN LOBBY, RESTROOM, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
8	8	TAN COVE MOLDING, SW ENTRANCE WAY OF SOUTH HALLWAY, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE	CLIENT I.D.	DESCRIPTION/	*ASBESTOS PRESENT	ASBESTOS	PERCENT	тесн.	NON-ASBESTOS- CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
8	8	BROWN MASTIC ON TAN COVE MOLDING, SW ENTRANCE WAY OF SOUTH HALLWAY, LAYER 2 OF 2.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE
9	9	BLUE, RED AND BROWN SMALL VERTICAL HORIZONTAL LINE PATTERN VINYL WALL COVERING, MAIN LOBBY, RESTROOM, NE CORNER.	N			JAW	80% CELLULOSE 20% NON-FIBROUS MATTER
10	10	BLUE, RED AND BROWN SMALL VERTICAL HORIZONTAL LINE PATTERN VINYL WALL COVERING, MAIN LOBBY, RESTROOM, SW CORNER.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER
11	11	WHITE DRYWALL, SOUTH HALLWAY, WEST OF LOBBY RECEPTION AREA, LAYER 1 OF 2.	N			JAW	93% NON-FIBROUS MATTER 7% CELLULOSE
11	11	BROWN DRYWALL, SOUTH HALLWAY, WEST OF LOBBY RECEPTION AREA, LAYER 2 OF 2.	N			JAW	92% CELLULOSE 8% NON-FIBROUS MATTER

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510
FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

PROJECT:

EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,

C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE	CLIENT I.D.	DESCRIPTION/	*ASBESTOS PRESENT	ASBESTOS	PERCENT	ТЕСН.	NON-ASBESTOS- CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
12	12	WHITE DRYWALL, NW OFFICE AREA, EAST NORTH/SOUTH HALLWAY, LAYER 1 OF 2.	N			JAW	91% NON-FIBROUS MATTER 9% CELLULOSE
12	12	BROWN DRYWALL, NW OFFICE AREA, EAST NORTH/SOUTH HALLWAY, LAYER 2 OF 2.	N			JAW	95% CELLULOSE 5% NON-FIBROUS MATTER
13	13	WHITE DRYWALL, WEST OFFICE AREA, OFF WEST NORTH/SOUTH HALLWAY, LAYER 1 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE
13		BROWN DRYWALL, WEST OFFICE AREA, OFF WEST NORTH/SOUTH HALLWAY, LAYER 2 OF 2.	N			JAW	93% CELLULOSE 7% NON-FIBROUS MATTER
14		WHITE DRYWALL JOINT COMPOUND, SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 1 OF 2.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE	CLIENT I.D.	DESCRIPTION/	*ASBESTOS PRESENT	ASBESTOS	PERCENT	ТЕСН.	NON-ASBESTOS- CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
14	14	BROWN DRYWALL JOINT COMPOUND, SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 2 OF 2.	N			JAW	90% CELLULOSE 10% NON-FIBROUS MATTER
15	15	WHITE DRYWALL JOINT COMPOUND, NW OFFICE AREA, EAST NORTH/SOUTH HALLWAY, LAYER 1 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE
15	15	BROWN DRYWALL JOINT COMPOUND, NW OFFICE AREA, EAST NORTH/SOUTH HALLWAY, LAYER 2 OF 2.	N			JAW	92% CELLULOSE 8% NON-FIBROUS MATTER
16	16	WHITE DRYWALL JOINT COMPOUND, WEST OFFICE AREA, WEST NORTH/SOUTH HALLWAY, LAYER 1 OF 2.	N			JAW	93% NON-FIBROUS MATTER 7% CELLULOSE
16	16	BROWN DRYWALL JOINT COMPOUND, WEST OFFICE AREA, WEST NORTH/SOUTH HALLWAY, LAYER 2 OF 2.	N			JAW	95% CELLULOSE 5% NON-FIBROUS MATTER

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
17	17	ARROW PATIERN VINYL WALL COVERING, NW OFFICE, SALES/MARKETING AREA.	N			JAW	85% CELLULOSE 15% NON-FIBROUS MATTER
18	18	ARROW PATTERN VINYL WALL COVERING, NE OFFICE, SALES/MARKETING AREA.	N			JAW	80% CELLULOSE 20% NON-FIBROUS MATTER
19		FOLDED LEAF PATTERN VINYL WALL COVERING, SOUTH HALLWAY, WEST OF MAIN LOBBY.	N			JAW	85% CELLULOSE 15% NON-FIBROUS MATTER
20	20	FOLDED LEAF PATTERN VINYL WALL COVERING, RECEPTION AREA, SOUTH HALLWAY, CENTER.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER
21	21	MAROON VINYL WALL COVERING, EXECUTIVE OFFICE IN SOUTH HALLWAY, OFF MAIN LOBBY, SE CORNER.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE
22	22	MAROON VINYL WALL COVERING, EXECUTIVE OFFICE IN SOUTH HALLWAY, OFF MAIN LOBBY, NW CORNER.	N			JAW	92% NON-FIBROUS MATTER 8% CELLULOSE

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382

Page 6 of 24



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

PROJECT:

EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,

C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
23	23	CREAM VINYL WALL COVERING WITH SQUARES, SE CORNER OF SALES/ MARKETING, OPEN AREA.	N			JAW	85% NON-FIBROUS MATTER 15% CELLULOSE
24	24	CREAM VINYL WALL COVERING WITH SQUARES, NW CORNER OF SALES/ MARKETING, OPEN AREA.	N			JAW	75% NON-FIBROUS MATTER 25% CELLULOSE
25	25	WHITE AIRCELL PIPE STRAIGHT INSULATION, SOUTH HALLWAY, MEN'S RESTROOM.	Y	CHRYSOTILE	15%	JAW	60% CELLULOSE 25% NON-FIBROUS MATTER
28	28	BROWN CORK BOARD, SE CORNER OFFICE, SOUTH WALL OF QUALITY CONTROL AREA, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
28	28	BROWN MASTIC ON BROWN CORK BOARD, SE CORNER OFFICE, SOUTH WALL OF QUALITY CONTROL AREA, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE

COMMENTS:

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Page 7 of 24



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
29	29	BROWN CORK BOARD, NW CORNER OF EAST NORTH/SOUTH HALLWAY, ABOVE CEILING, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
29	29	BROWN MASTIC ON BROWN CORK BOARD, NW CORNER OF EAST NORTH/SOUTH HALLWAY, ABOVE CEILING, LAYER 2 OF 2.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE
30	30	RED VINYL WALL COVERING WITH BLUE VERTICAL STRIPES, SW CORNER OFFICE, OFF SOUTH HALLWAY, NE CORNER.	N			JAW	65% CELLULOSE 35% NON-FIBROUS MATTER
31	31	RED VINYL WALL COVERING WITH BLUE VERTICAL STRIPES, SW CORNER OFFICE, OFF SOUTH HALLWAY, SW CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
32	32	WHITE VINYL WALL COVERING, TRAINING ROOM OFF CENTER KITCHENETTE.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE

COMMENTS:

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Page 8 of 24



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510
FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED:** 3/19-22/04

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
33	33	WHITE VINYL WALL COVERING, WEST EXECUTIVE OFFICE, SOUTH WALL, CENTER.	N			JAW	85% NON-FIBROUS MATTER 15% CELLULOSE
34	34	GRAY TRANSITE PANEL, SW OFFICE, ABOVE CEILING IN SOUTH HALLWAY.	Y	CHRYSOTILE	30%	JAW	70% NON-FIBROUS MATTER
36	36	WHITE SINK UNDERCOATING, KITCHENETTE AREA, CENTER.	N			JAW	60% NON-FIBROUS MATTER 40% CELLULOSE
37	37	WHITE SINK UNDERCOATING, RECEPTION AREA OFF SOUTH HALLWAY, CENTER.	N			JAW	55% NON-FIBROUS MATTER 45% CELLULOSE
38	38	GRAY SEA SHELL PATTERN VINYL WALL COVERING, WOMEN'S RESTROOM OFF CENTRAL KITCHENETTE AREA, NE CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER

COMMENTS:



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
39	39	GRAY SEA SHELL PATTERN VINYL WALL COVERING, WOMEN'S RESTROOM OFF CENTRAL KITCHENETTE AREA, SW CORNER.	N			JAW	65% CELLULOSE 35% NON-FIBROUS MATTER
40	40	TRIANGLE AND SQUARE PATTERN VINYL WALL COVERING, FINANCE DEPARTMENT, NW OFFICE.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
41	41	TRIANGLE AND SQUARE PATTERN VINYL WALL COVERING, FINANCE DEPARTMENT, NE OFFICE.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER
42	42	2' X 4', WHITE LAY-IN FLAT SURFACE CEILING TILE, COMPUTER ROOM, CENTER.	N			JAW	80% CELLULOSE 20% NON-FIBROUS MATTER
43	43	2' X 4', WHITE LAY-IN FLAT SURFACE CEILING TILE, COMPUTER ROOM, SE AREA.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER

COMMENTS:



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FIBERTEC	CLIENT		*ASBESTOS				NON-ASBESTOS-
SAMPLE	I.D.	DESCRIPTION/	PRESENT	ASBESTOS	PERCENT	ТЕСН.	CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
44	44	BLUE, BROWN AND PURPLE VERTICAL STREAKED VINYL WALL COVERING, QUALITY DESIGN AREA, SE OFFICE.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER
45	45	BLUE, BROWN AND PURPLE VERTICAL STREAKED VINYL WALL COVERING, QUALITY DESIGN AREA, NW CORNER.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
46	46	GRAY COVE MOLDING, SE OFFICE OF NORTH CENTRAL ENTRANCE TO MANUFACTURING AREA, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
46	46	BROWN MASTIC ON GRAY COVE MOLDING, SE OFFICE OF NORTH CENTRAL ENTRANCE TO MANUFACTURING AREA, LAYER 2 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE
47	47	GRAY COVE MOLDING, SW CORNER OF QUALITY/DESIGN AREA, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382



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47	47	BROWN MASTIC ON GRAY COVE MOLDING, SW CORNER OF QUALITY/DESIGN AREA, LAYER 2 OF 2.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE
48	48	VERTICAL DOUBLE SIDED ARROW DESIGN VINYL WALL COVERING, QUALITY/DESIGN AREA, NE CORNER, SW OFFICE.	N			JAW	70% CELLULOSE 30% NON-FIBROUS MATTER
49	49	VERTICAL DOUBLE SIDED ARROW DESIGN VINYL WALL COVERING, QUALITY/DESIGN AREA, SW CORNER, SW OFFICE.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER
50	50	MULTI-COLORED STREAKED VINYL WALL COVERING, ENVIRONMENTAL MANAGER'S OFFICE, SW CORNER.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER

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51	51	MULTI-COLORED STREAKED VINYL WALL COVERING, SE OFFICE, CENTER NORTH ENTRANCE, MANUFACTURING AREA, SW CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
52	52	BLACK COVE MOLDING, SW OFFICE OF NORTH EAST/WEST HALLWAY, NW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
52	52	WHITE MASTIC ON BLACK COVE MOLDING, SW OFFICE OF NORTH EAST/WEST HALLWAY, NW CORNER, LAYER 2 OF 2.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE
53	53	BLACK COVE MOLDING, SW OFFICE OF NORTH EAST/WEST HALLWAY, SE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
53	53	WHITE MASTIC ON BLACK COVE MOLDING, SW OFFICE OF NORTH EAST/WEST HALLWAY, SE CORNER, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE

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54	54	GRAY LINOLEUM WITH MULTI-COLORED SPECKS, NORTH ENTRANCE WAY TO MANUFACTURING AREA, SE ROOM, LAYER 1 OF 2.	N			JAW	60% NON-FIBROUS MATTER 40% CELLULOSE
54	54	BROWN MASTIC ON GRAY LINOLEUM WITH MULTI-COLORED SPECKS, NORTH ENTRANCE WAY TO MANUFACTURING AREA, SE ROOM, LAYER 2 OF 2.	N			JAW	94% NON-FIBROUS MATTER 6% CELLULOSE
55	55	GRAY LINOLEUM WITH MULTI-COLORED SPECKS, NORTH ENTRANCE WAY TO MANUFACTURING AREA, NW ROOM, LAYER 1 OF 2.	N			JAW	60% NON-FIBROUS MATTER 40% CELLULOSE
55	55	BROWN MASTIC ON GRAY LINOLEUM WITH MULTI-COLORED SPECKS, NORTH ENTRANCE WAY TO MANUFACTURING AREA, NW ROOM, LAYER 2 OF 2.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE

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56	56	TAN MARBLE VINYL WALL COVERING, NW CORNER OFFICE, WEST OF MEN'S RESTROOM, OFF NORTH HALL.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER
57	57	TAN MARBLE VINYL WALL COVERING, SE CORNER OFFICE, WEST OF MEN'S RESTROOM, OFF NORTH HALL.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
58	58	MAROON PICK UP STICKS VINYL WALL COVERING, FAR NW CORNER OF NW OFFICE, OFF EAST NORTH/SOUTH HALLWAY.	N			JAW	65% CELLULOSE 35% NON-FIBROUS MATTER
59	59	MAROON PICK UP STICKS VINYL WALL COVERING, FAR NW CORNER OF NW OFFICE, OFF EAST NORTH/SOUTH HALLWAY.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
60	60	THICK VERTICAL TAN STRIPED VINYL WALL COVERING, WEST SIDE OF NORTH/SOUTH HALLWAY, NE CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER

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61	61	THICK VERTICAL TAN STRIPED VINYL WALL COVERING, WEST SIDE OF NORTH/SOUTH HALLWAY, SW CORNER.	N			JAW	70% CELLULOSE 30% NON-FIBROUS MATTER
62	62	2' X 4', WHITE LAY-IN CEILING TILE WITH SMOOTH LIGHT TEXTURE, TOOL ROOM, BAY 2 AREA, NE CORNER.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER
63		2' X 4', WHITE LAY-IN CEILING TILE WITH SMOOTH LIGHT TEXTURE, TOOL ROOM, BAY 2 AREA, SW CORNER.	N			JAW	75% CELLULOSE 25% NON-FIBROUS MATTER
64	64	BRAIDED WHITE PIPE WRAP WITH OIL RESIDUE, BAY 3, OPEN ARA, NE CORNER.	Y	CHRYSOTILE	20%	JAW	80% NON-FIBROUS MATTER
67	67	WHITE WINDOW GLAZING COMPOUND, BAY 5, EAST WINDOWS, NORTH SIDE.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE
68	68	WHITE WINDOW GLAZING COMPOUND, BAY 5, EAST WINDOWS, SOUTH SIDE.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE

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69	69	DARK BROWN COVE MOLDING, SHIPPING AREA, NW OFFICE, SE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
69	69	BROWN MASTIC ON DARK BROWN COVE MOLDING, SHIPPING AREA, NW OFFICE, SE CORNER, LAYER 2 OF 2.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE
70	70	DARK BROWN COVE MOLDING, SHIPPING AREA, NW OFFICE, SW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
70	70	BROWN MASTIC ON DARK BROWN COVE MOLDING, SHIPPING AREA, NW OFFICE, SW CORNER, LAYER 2 OF 2.	N			JAW	94% NON-FIBROUS MATTER 6% CELLULOSE
71	71	12" X 12", GRAY MARBLE FLOOR TILE, PRODUCT STORAGE AREA, NE OFFICE, NE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER

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71	71	BROWN MASTIC ON 12" X 12", GRAY MARBLE FLOOR TILE, PRODUCT STORAGE AREA, NE OFFICE, NE CORNER, LAYER 2 OF 2.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE
72	72	12" X 12", GRAY MARBLE FLOOR TILE, PRODUCT STORAGE AREA, NE OFFICE, NW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
72	72	BROWN MASTIC ON 12" X 12", GRAY MARBLE FLOOR TILE, PRODUCT STORAGE AREA, NE OFFICE, NW CORNER, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
73	73	12" X 12", TAN FLOOR TILE WITH SPECKS, SHIPPING AREA, NW OFFICE, SW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
73	73	BROWN MASTIC ON 12" X 12", TAN FLOOR TILE WITH SPECKS, SHIPPING AREA, NW OFFICE, SW CORNER, LAYER 2 OF 2.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE

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74	74	12" X 12", TAN FLOOR TILE WITH SPECKS, SHIPPING AREA, NW OFFICE, SE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
74	74	BROWN MASTIC ON 12" X 12", TAN FLOOR TILE WITH SPECKS, SHIPPING AREA, NW OFFICE, SE CORNER, LAYER 2 OF 2.	N			JAW	93% NON-FIBROUS MATTER 7% CELLULOSE
75	75	2' X 4', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, SOUTH HALLWAY, WEST OF LOBBY RECEPTION AREA.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
76		2' X 4', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, NORTH ENTRANCE WAY TO MANUFACTURING AREA.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER

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77	77	BURLAP PATTERN VINYL WALL COVERING BENEATH DRYWALL, SOUTH END OF SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 1 OF 2.	N			JAW	88% NON-FIBROUS MATTER 12% CELLULOSE
77	77	BROWN BACKING ON BURLAP PATTERN VINYL WALL COVERING BENEATH DRYWALL, SOUTH END OF SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 2 OF 2.	N			JAW	90% CELLULOSE 10% NON-FIBROUS MATTER
78	78	BURLAP PATTERN VINYL WALL COVERING BENEATH DRYWALL, NORTH END OF SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 1 OF 2.	N			JAW	86% NON-FIBROUS MATTER 14% CELLULOSE
78	78	BROWN BACKING ON BURLAP PATTERN VINYL WALL COVERING BENEATH DRYWALL, NORTH END OF SOUTH HALLWAY, WEST OF LOBBY AREA, LAYER 2 OF 2.	N			JAW	94% CELLULOSE 6% NON-FIBROUS MATTER

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
79	79	WHITE CEILING LIGHT HEAT SHIELD, EXECUTIVE OFFICE IN SOUTH HALLWAY, OFF MAIN LOBBY, CLOSET.	Y	CHRYSOTILE	15%	JAW	50% NON-FIBROUS MATTER 35% CELLULOSE
81	81	12" X 12", WHITE SPLINED CEILING TILE WITH FISSURES, EXECUTIVE OFFICE IN SOUTH HALLWAY, OFF MAIN LOBBY, BATHROOM.	N			JAW	40% FIBROUS GLASS 35% NON-FIBROUS MATTER 25% CELLULOSE
82	82	12" X 12", WHITE SPLINED CEILING TILE WITH FISSURES, EXECUTIVE OFFICE IN SOUTH HALLWAY, OFF MAIN LOBBY, BATHROOM.	N			JAW	45% FIBROUS GLASS 30% NON-FIBROUS MATTER 25% CELLULOSE
83	83	RUST SPECKLED LINOLEUM, TELECOMMUNICATIONS ROOM IN SALES/MARKETING AREA, NE CORNER.	Y	CHRYSOTILE	35%	JAW	65% NON-FIBROUS MATTER
85	85	WHITE FLOOR TILE, CENTER HALLWAY, LAYER 1 OF 2.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382

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CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

\*No asbestos present indicates less than or equal to 1% asbestos present. Test items were received in an acceptable condition.

FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
85	85	BROWN MASTIC ON WHITE FLOOR TILE, CENTER HALLWAY, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
86	86	WHITE FLOOR TILE, CENTER HALLWAY, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
86	86	BROWN MASTIC ON WHITE FLOOR TILE, CENTER HALLWAY, LAYER 2 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE
87	87	BLACK ROOF TAR AND RUBBER, SE END OF ROOF AREA.	N			JAW	100% NON-FIBROUS MATTER
88		BLACK ROOF TAR AND RUBBER, SW END OF ROOF AREA.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE
89	89	SILVER EXTERIOR CAULK, EXTERIOR GAS HEATING UNIT.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE
90	90	SILVER EXTERIOR CAULK, EXTERIOR GAS HEATING UNIT.	N			JAW	98% NON-FIBROUS MATTER 2% CELLULOSE

COMMENTS:

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Page 22 of 24



CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

**DATE ANALYZED: 3/19-22/04** 

**PROJECT:**CLIENT P.O.#: N/A
EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,
C.O.C. NO.: N/A

120 SAMPLE LAYERS ANALYZED.

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

\*No asbestos present indicates less than or equal to 1% asbestos present. Test items were received in an acceptable condition.

FIBERTEC	CLIENT		*ASBESTOS				NON-ASBESTOS-
SAMPLE	I.D.	DESCRIPTION/	PRESENT	ASBESTOS	PERCENT	ТЕСН.	CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
91	91	BLACK CAULK, DOOR FRAME, MAIN LOBBY.	N			JAW	100% NON-FIBROUS MATTER
92	92	BLACK CAULK, OUTSIDE ENTRANCE TO BUILDING.	N			JAW	100% NON-FIBROUS MATTER
93	93	GRAY CAULK, SW CORNER, EXTERIOR OF BUILDING.	N			JAW	100% NON-FIBROUS MATTER
94	94	GRAY CAULK, SE CORNER, EXTERIOR OF BUILDING.	N			JAW	100% NON-FIBROUS MATTER
95	95	DARK BROWN CAULK, SE EXTERIOR WINDOW.	N			JAW	100% NON-FIBROUS MATTER
96	96	DARK BROWN CAULK, SW EXTERIOR WINDOW.	N			JAW	100% NON-FIBROUS MATTER
97	97	TAN EXTERIOR DECORATIVE BUILDING WALL PLASTER, NE OUTDOOR WALL.	N			JAW	100% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS G & M, INC.

DATE SUBMITTED: 3/8/04

DATE ANALYZED: 3/19-22/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18898-1

PROJECT:

EAGLE PICHER, 135 E. SOUTH STREET, HILLSDALE, MI, 101 COLLECTED BULK SAMPLES,

120 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

\*No asbestos present indicates less than or equal to 1% asbestos present. Test items were received in an acceptable condition.

FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
98	98	TAN EXTERIOR DECORATIVE BUILDING WALL PLASTER, NW EXTERIOR WALL.	N			JAW	100% NON-FIBROUS MATTER
99	99	TAN EXTERIOR DECORATIVE BUILDING WALL PLASTER, SOUTH CENTER EXTERIOR WALL.	N			JAW	100% NON-FIBROUS MATTER
100	100	TAN EXTERIOR DECORATIVE BUILDING WALL PLASTER, SE CENTER WALL.	N			JAW	100% NON-FIBROUS MATTER
101	101	TAN EXTERIOR DECORATIVE BUILDING WALL PLASTER, SW EXTERIOR WALL.	N			JAW	100% NON-FIBROUS MATTER

COMMENTS	S:						
DATE:				APPROVE	D SIGNATO	DRY	

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382



March 31, 2004

Fibertec Project # 76854

Project Identification: Eagle Picher South St. Hillsdale/ 18898

Ms. Dawn Sharvin Arcadis 25200 Telegraph Road Southfield, MI 48034

Dear Ms. Sharvin:

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples collected at the above referenced project site have been analyzed as requested and the results compiled in the enclosed report. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Telephone: (517) 699-0345

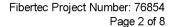
Telephone: (248) 446-5700

Sincerely,

Daryl P. Strandbergh Laboratory Director

DPS/kc

Enclosures





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: CREAM (OVER DRYWALL)

HILLSDALE OFFICE AREAS

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 01

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

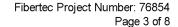
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.0091	%WT	0.00031	6020	28336	3/16/2004	3/17/2004	JLH

Telephone: (517) 699-0345 Facsimile: (517) 699-0388 Telephone: (248) 446-5700 Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: RED (FLOOR AND

HILLSDALE SPRINKLER SYSTEM)

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 02

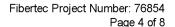
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.98	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: YELLOW (SUPPORT

HILLSDALE BEAMS, GAS LINES)

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 03

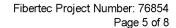
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT, RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	3.2	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	ЛLН





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: LIGHT BLUE OVER LIGHT

HILLSDALE GREEN

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 04

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

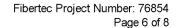
DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT, RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH INIT.
LEAD	0.26	%WT	0.00032	6020	28336	3/16/2004	3/17/2004	ЛLН

Facsimile: (517) 699-0388

Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: CREAM OVER GREEN

HILLSDALE

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 05

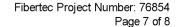
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT, RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.089	%WT	0.00019	6020	28336	3/16/2004	3/17/2004	JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: GRAY OVER RED

HILLSDALE

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 06

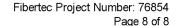
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.015	%WT	0.00019	6020	28336	3/16/2004	3/17/2004	JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76854 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER SOUTH ST. CLIENT SAMPLE DESCRIPTION: DARK GREEN

HILLSDALE

PROJECT NUMBER: 18898 CLIENT SAMPLE NUMBER: 07

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42706B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.13	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	ЛLН

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### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North warehouse product storage, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Control room, SE office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 12'	120	s.f.
Quality Control room, SE office	Brown cork board and associated mastic	Undamaged	28	N	4' x 10' 4' x 6'	64	s.f.
Quality Control room, SE office	Cream paint over green	Undamaged	PB-05	Y (Lead)	8' x 10' x 2 8' x 12' x 2	352	s.f.
Quality Control room, SE office	Gray paint over red	Undamaged	PB-06	Y (Lead)	10' x 12'	120	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, lunch room	Cream wall paint	Undamaged	PB-05	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, north office, First Aid Room, NE corner	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	7' x 12'	84	s.f.
Bay 4, north office, First Aid Room, NE corner	Gray cove molding	Undamaged	46	N	24' x 4" 7' x 4"	13	s.f.
Bay 4, north office, First Aid Room, NE corner	Cream wall paint	Undamaged	PB-05	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North warehouse shipping	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Warehouse storage area, south	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Warehouse storage area, south	Red paint	Undamaged	PB-02	Y (Lead)	-	100	l.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Warehouse, center area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Warehouse, compressor room area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Warehouse, south entry area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Warehouse, south entry area	Cream paint on metal decking (ceiling)	Undamaged	PB-05	Y (Lead)	20' x 20'	400	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 5, open area	Window glazing compound	Damaged	67	N	3' x 3' (10 sets)	10	ct.
Bay 5, open area	Cream wall paint	Undamaged	PB-05	Y (Lead)			
Bay 5, open area	Yellow column paint	Undamaged	PB-03	Y (Lead)	25' x 80'	2,000	s.f.
Bay 5, open area	Red paint	Undamaged	PB-02	Y (Lead)		450	l.f.
Bay 5, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Bay 5, open area (scrap metal dock)	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 5 area, test area, NE corner	Pipe straight insulation	Damaged	25	Υ	-	3	l.f.
Bay 5 area, test area, NE corner	Drywall	Undamaged	11	N	35' x 25'	875	s.f.
Bay 5 area, test area, NE corner	Drywall joint compound	Undamaged	14	N	875' x 50%	438	s.f.
Bay 5 area, test area, NE corner	Dark brown cove molding	Undamaged	69	N	35' x 2 x 4"	28	s.f.
Bay 5 area, test area, NE corner	Window glazing compound	Undamaged	67	N	3' x 3'	2 sets	ct.
Bay 5 area, test area, NE corner	Cream paint	Undamaged	PB-05	Y (Lead)			
Bay 5 area, test area, NE corner	Red paint	Undamaged	PB-02	Y (Lead)		150	l.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, tool crib area	Cream paint	Undamaged	PB-05	Y (Lead)	-	-	

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, south office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	9' x 20'	180	s.f.
Bay 4, south office	Cream paint	Undamaged	PB-05	Y (Lead)	-	-	

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004	
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main	

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, locker room	Cream paint	Undamaged	PB-05	Y (Lead)	-	-	
Bay 4, locker room	Red paint	Undamaged	PB-02	Y (Lead)	-	50	l.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 3, open area	White braided pipe wrap	Significantly damaged	64	Y	-	125	l.f.
Bay 3, open area	Yellow column paint	Undamaged	PB-03	Y (Lead)	25' x 45'	1,125	s.f.
Bay 3, open area	Cream paint	Undamaged	PB-05	Y (Lead)			
Bay 3, open area	Gray floor paint	Undamaged	PB-06	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, open area	Cream paint	Undamaged	PB-05	Y (Lead)			
Bay 4, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Bay 4, open area	Yellow column paint	Undamaged	PB-03	Y (Lead)	20' x 25'	500	s.f.
Bay 4, open area	Red paint	Undamaged	PB-02	Y (Lead)		200	l.f.
Bay 4, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Bay 4, open area	Aircell pipe straight insulation	Undamaged	25	Υ		55	l.f.
Bay 4, open area	Window glazing compound	Damaged	67	N	4' x 6'	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 4, restroom area	Aircell pipe straight insulation	Undamaged	25	Y		30	l.f.
Bay 4, restroom area	Cream paint	Undamaged	PB-05	Y (Lead)			
Bay 4, restroom area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 3, Maintenance Dept., SE office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 16'	160	s.f.
Bay 3, Maintenance Dept., SE office area	Red paint	Undamaged	PB-02	Y (Lead)			
Bay 3, Maintenance Dept., SE office area	Cream paint	Undamaged	PB-05	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 2, open area	Red paint	Undamaged	PB-02	Y (Lead)		200	l.f.
Bay 2, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)			
Bay 2, open area	Cream paint	Undamaged	PB-05	Y (Lead)			
Bay 2, open area	Gray floor paint	Undamaged	PB-06	Y (Lead)			
Bay 2, open area	Yellow column paint	Undamaged	PB-03	Y (Lead)		300	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Control, open area	Cream paint	Undamaged	PB-05	Y (Lead)	-		
Quality Control, open area	Light blue wall paint	Undamaged	PB-04	Y (Lead)	-		
Quality Control, open area	Light green floor paint	Undamaged	PB-04	Y (Lead)	-		
Quality Control, open area	Gray floor paint	Undamaged	PB-07	Y (Lead)	-		
Quality Control, open area	Yellow column paint	Undamaged	PB-03	Y (Lead)	-	20	s.f.
Quality Control, open area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 10'	100	s.f.
Quality Control, open area	Cork board	Undamaged	28	N	5' x 10'	50	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Control, SW office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 16'	160	s.f.
Quality Control, SW office	Cork board	Undamaged	28	N	3' x 5'	150	s.f.
Quality Control, SW office	Gray and red floor paint	Undamaged	PB-06	Y (Lead)	10' x 16'	160	s.f.
Quality Control, SW office	Light green wall paint	Undamaged	PB-04	Y (Lead)	2 x 10' x 8' 2 x 16' x 8'	416	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Maintenance area, file storage, SE Bay 2	Dark green floor paint	Undamaged	PB-07	Y (Lead)	-	-	

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Product storage area, NE corner office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	20' x 20'	400	s.f.
Product storage area, NE corner office	Drywall	Undamaged	11	N	4 x 20' x 8'	640	s.f.
Product storage area, NE corner office	Drywall joint compound	Undamaged	14	N	640' x 50%	320	s.f.
Product storage area, NE corner office	Black cove molding	Undamaged	52	N	4 x 20' x 4"	32	s.f.
Product storage area, NE corner office	12" x 12", gray marble floor tile	Undamaged	71	N	20' x 20'	400	s.f.
Product storage area, NE corner office	Cream paint	Undamaged	PB-01	Y (Lead)	4 x 20' x 8'	640	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW office area off center hallway to Manufacturing Area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	9' x 10'	90	s.f.
NW office area off center hallway to Manufacturing Area	Drywall	Undamaged	11	N	2 x 9' x 8' 2 x 10' x 8'	304	s.f.
NW office area off center hallway to Manufacturing Area	Drywall joint compound	Undamaged	14	N	304' x 50%	152	s.f.
NW office area off center hallway to Manufacturing Area	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 9' x 8' 2 x 10' x 10'	304	s.f.
NW office area off center hallway to Manufacturing Area	Gray cove molding	Undamaged	46	N	2 x 9' x 4" 2 x 10' x 4"	15	s.f.
NW office area off center hallway to Manufacturing Area	Gray linoleum	Undamaged	54	N	9' x 10'	90	s.f.
NW office area off center hallway to Manufacturing Area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North east/west hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	5' x 84'	420	s.f.
North east/west hallway	Drywall	Undamaged	11	N	2 x 84' x 8'	1,344	s.f.
North east/west hallway	Drywall joint compound	Undamaged	14	N	1,344' x 50%	672	s.f.
North east/west hallway	Folded leaf pattern vinyl wall covering	Undamaged	19	N	2 x 84' x 8'	1,344	s.f.
North east/west hallway	Tan cove molding	Undamaged	7	N	2 x 84' x 4"	67	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Area, NW corner office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 12'	120	s.f.
Quality Area, NW corner office	Drywall	Undamaged	11	N	2 x 10' x 10' 2 x 12' x 10'	440	s.f.
Quality Area, NW corner office	Drywall joint compound	Undamaged	14	N	440' x 50%	220	s.f.
Quality Area, NW corner office	Thick tan vertical streak pattern vinyl wall covering	Undamaged	60	N	10' x 10'	100	s.f.
Quality Area, NW corner office	Gray cove molding	Undamaged	46	N	2 x 10' x 4" 2 x 12' x 4"	18	s.f.
Quality Area, NW corner office	Fire door and frame	Undamaged	Unsampled	Assumed		1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Exterior

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Roof area	Roof tar/rubber	Undamaged	87	N		64,000	s.f.
Gas heating unit west of Quality/Design Area	Silver caulk	Undamaged	89	N	40	40	l.f.
Main entrance	Black window/door caulk	Undamaged	91	N		80	l.f.
Exterior of building	Gray caulk	Undamaged	93	N		350	l.f.
Exterior of building	Dark brown caulk	Undamaged	95	N		300	l.f.
Exterior walls	Tan outdoor plaster covering	Undamaged	97	N	70' x 12' 45' x 12' 10' x 33' 110' x 12'	3,030	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Area, NE corner, storage room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 12'	96	s.f.
Quality Area, NE corner, storage room	Drywall	Undamaged	11	N	2 x 8' x 10' 2 x 12' x 10'	400	s.f.
Quality Area, NE corner, storage room	Drywall joint compound	Undamaged	14	N	400' x 50%	200	s.f.
Quality Area, NE corner, storage room	Gray cove molding	Undamaged	46	N	2 x 8' x 4" 2 x 12' x 4"	16	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North exit foyer area to Quality	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 12'	72	s.f.
North exit foyer area to Quality	Drywall	Undamaged	11	N	2 x 6' x 10'	120	s.f.
North exit foyer area to Quality	Drywall joint compound	Undamaged	14	N	2 x 12' x 10'	240	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW conference area off north hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	18' x 20'	360	s.f.
NW conference area off north hallway	Drywall	Undamaged	11	N	2 x 18' x 8' 2 x 20' x 8'	608	s.f.
NW conference area off north hallway	Drywall joint compound	Undamaged	14	N	608' x 50%	304	s.f.
NW conference area off north hallway	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 18' x 8' 2 x 20' x 8'	608	s.f.
NW conference area off north hallway	Gray cove molding	Undamaged	46	N	2 x 18' x 4" 2 x 20' x 4"	30	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Environmental Manager office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 19'	228	s.f.
Environmental Manager office	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 19' x 8'	496	s.f.
Environmental Manager office	Drywall joint compound	Undamaged	14	N	496' x 50%	248	s.f.
Environmental Manager office	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 12' x 8' 2 x 19' x 8'	496	s.f.
Environmental Manager office	Tan cove molding	Undamaged	7	N	2 x 12' x 4" 2 x 19' x 4"	25	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office in south center area off north east/west hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 14'	140	s.f.
Office in south center area off north east/west hallway	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
Office in south center area off north east/west hallway	Drywall joint compound	Undamaged	14	N	384' x 50%	192	s.f.
Office in south center area off north east/west hallway	Black cove molding	Undamaged	52	N	2 x 10' x 4" 2 x 14' x 4"	19	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
South center entrance to Manufacturing Area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	20' x 6'	120	s.f.
South center entrance to Manufacturing Area	Drywall	Undamaged	11	N	2 x 3' x 8' 2 x 20' x 8'	368	s.f.
South center entrance to Manufacturing Area	Drywall joint compound	Undamaged	14	N	368' x 50%	184	s.f.
South center entrance to Manufacturing Area	Gray cove molding	Undamaged	46	N	2 x 3' x 4" 2 x 20' x 4"	18	s.f.
South center entrance to Manufacturing Area	Gray linoleum	Undamaged	54	N	6' x 20'	120	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE office area off center hallway to Manufacturing area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 17'	170	s.f.
NE office area off center hallway to Manufacturing area	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 17' x 8'	432	s.f.
NE office area off center hallway to Manufacturing area	Drywall joint compound	Undamaged	14	N	432' x 50%	216	s.f.
NE office area off center hallway to Manufacturing area	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 10' x 8' 2 x 17' x 8'	432	s.f.
NE office area off center hallway to Manufacturing area	Gray cove molding	Undamaged	46	N	2 x 10' x 4" 2 x 17' x 4"	22	s.f.
NE office area off center hallway to Manufacturing area	Gray linoleum	Undamaged	54	N	10' x 17'	170	s.f.
NE office area off center hallway to Manufacturing area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE office area off center hallway to Manufacturing area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 8'	48	s.f.
SE office area off center hallway to Manufacturing area	Drywall	Undamaged	11	N	2 x 6' x 8' 2 x 8' x 8'	224	s.f.
SE office area off center hallway to Manufacturing area	Drywall joint compound	Undamaged	14	N	224' x 50%	112	s.f.
SE office area off center hallway to Manufacturing area	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 6' x 8' 2 x 8' x 8'	224	s.f.
SE office area off center hallway to Manufacturing area	Gray cove molding	Undamaged	46	N	2 x 6' x 4" 2 x 8' x 4"	11	s.f.
SE office area off center hallway to Manufacturing area	Gray linoleum	Undamaged	54	N	6' x 8'	48	s.f.
SE office area off center hallway to Manufacturing area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
2nd office west of men's restroom in north hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 12'	96	s.f.
2nd office west of men's restroom in north hallway	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 12' x 8'	320	s.f.
2nd office west of men's restroom in north hallway	Drywall joint compound	Undamaged	14	N	320' x 50%	160	s.f.
2nd office west of men's restroom in north hallway	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 8' x 8' 2 x 12' x 8'	320	s.f.
2nd office west of men's restroom in north hallway	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 12' x 4"	16	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW corner office off center hallway to Manufacturing Area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	9' x 12'	108	s.f.
SW corner office off center hallway to Manufacturing Area	Drywall	Undamaged	11	N	2 x 9' x 8' 2 x 12' x 8'	336	s.f.
SW corner office off center hallway to Manufacturing Area	Drywall joint compound	Undamaged	14	N	336' x 50%	168	s.f.
SW corner office off center hallway to Manufacturing Area	Multi-colored vertical streaks vinyl wall covering	Undamaged	50	N	2 x 9' x 8' 2 x 12' x 8'	336	s.f.
SW corner office off center hallway to Manufacturing Area	Gray cove molding	Undamaged	46	N	2 x 9' x 4" 2 x 12' x 4"	17	s.f.
SW corner office off center hallway to Manufacturing Area	Gray linoleum	Undamaged	54	N	9' x 12'	108	s.f.
SW corner office off center hallway to Manufacturing Area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE corner of building, men's restroom	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 20'	160	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE office off north east/west hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 12'	96	s.f.
NE office off north east/west hallway	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 12' x 8'	320	s.f.
NE office off north east/west hallway	Drywall joint compound	Undamaged	14	N	320' x 50%	160	s.f.
NE office off north east/west hallway	Tan marble vinyl wall covering	Undamaged	56	N	2 x 8' x 8' 2 x 12' x 8'	320	s.f.
NE office off north east/west hallway	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 12' x 4"	16	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding	5 1 8:1 405 5 0 11 01 11 11 11		
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE office area on east side	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	16' x 45'	720	s.f.
NE office area on east side	Drywall	Undamaged	11	N	2 x 45' x 8' 2 x 36' x 8'	1,296	s.f.
NE office area on east side	Drywall joint compound	Undamaged	14	N	1,296' x 50%	648	s.f.
NE office area on east side	Maroon pick up sticks pattern vinyl wall covering	Undamaged	58	N	8' x 16' 8' x 10'	208	s.f.
NE office area on east side	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 28' x 8' 2 x 30' x 8'	928	s.f.
NE office area on east side	Tan cove molding	Undamaged	7	N	2 x 45' x 4" 2 x 36' x 4"	65	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW office area off east north/south hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 28'	336	s.f.
NW office area off east north/south hallway	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 28' x 8'	640	s.f.
NW office area off east north/south hallway	Drywall joint compound	Undamaged	14	N	640' x 50%	320	s.f.
NW office area off east north/south hallway	Multi-colored vertical stripes vinyl wall covering	Undamaged	50	N	2 x 12' x 8' 2 x 28' x 8'	640	s.f.
NW office area off east north/south hallway	Tan cove molding	Undamaged	7	N	2 x 12' x 4" 2 x 28' x 4"	32	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE office off east north/south hallway (south of NE corner office)	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 16'	128	s.f.
NE office off east north/south hallway (south of NE corner office)	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 16' x 8'	384	s.f.
NE office off east north/south hallway (south of NE corner office)	Drywall joint compound	Undamaged	14	N	384' x 50%	192	s.f.
NE office off east north/south hallway (south of NE corner office)	Multi-colored vertical stripes vinyl wall covering	Undamaged	50	N	16' x 8' 8' x 8'	192	s.f.
NE office off east north/south hallway (south of NE corner office)	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 16' x 4"	19	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office area north of large glass window office on ease side	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	14' x 12'	168	s.f.
Office area north of large glass window office on ease side	Drywall	Undamaged	11	N	2 x 14' x 8' 2 x 12' x 8'	416	s.f.
Office area north of large glass window office on ease side	Drywall joint compound	Undamaged	14	N	416' x 50%	208	s.f.
Office area north of large glass window office on ease side	Maroon pick up sticks pattern vinyl wall covering	Undamaged	58	N	2 x 12' x 8' 2 x 14' x 8'	416	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
2nd room on east side of east north/south hallway, adjacent to Human Resource Room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	16' x 34'	544	s.f.
2nd room on east side of east north/south hallway, adjacent to Human Resource Room	Drywall	Undamaged	11	N	2 x 16' x 8' 2 x 34' x 8'	800	s.f.
2nd room on east side of east north/south hallway, adjacent to Human Resource Room	Drywall joint compound	Undamaged	14	N	800' x 50%	400	s.f.
2nd room on east side of east north/south hallway, adjacent to Human Resource Room	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 16' x 8' 2 x 34' x 8'	800	s.f.
2nd room on east side of east north/south hallway, adjacent to Human Resource Room	Tan cove molding	Undamaged	7	N	2 x 16' x 4" 2 x 34' x 4"	40	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Storage room, SE corner of 2nd room on east side of north/south hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 8'	48	s.f.
Storage room, SE corner of 2nd room on east side of north/south hallway	Drywall	Undamaged	11	N	2 x 6' x 8' 2 x 8' x 8'	224	s.f.
Storage room, SE corner of 2nd room on east side of north/south hallway	Drywall joint compound	Undamaged	14	N	224' x 50%	112	s.f.
Storage room, SE corner of 2nd room on east side of north/south hallway	Tan cove molding	Undamaged	7	N	2 x 6' x 4" 2 x 34' x 4"	11	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
1st room on west side of east north/south hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 17'	170	s.f.
1st room on west side of east north/south hallway	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 17' x 8'	432	s.f.
1st room on west side of east north/south hallway	Drywall joint compound	Undamaged	14	N	432' x 50%	216	s.f.
1st room on west side of east north/south hallway	Thick tan vertical striped vinyl wall covering	Undamaged	60	N	2 x 10' x 8' 2 x 17' x 8'	432	s.f.
1st room on west side of east north/south hallway	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 17' x 4"	22	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
East north/south hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	4' x 96'	384	s.f.
East north/south hallway	Drywall	Undamaged	11	N	2 x 96' x 8'	1,536	s.f.
East north/south hallway	Drywall joint compound	Undamaged	14	N	1,536' x 50%	768	s.f.
East north/south hallway	Folded leaf vinyl wall covering	Undamaged	19	N	2 x 96' x 8'	1,536	s.f.
East north/south hallway	Tan cove molding	Undamaged	7	N	2 x 96' x 4"	77	s.f.
East north/south hallway	Cork board	Unsampled	28	N	-	40	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
South Manufacturing Room, Bay 2 area, file room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	14' x 32'	448	s.f.
South Manufacturing Room, Bay 2 area, file room	Drywall	Undamaged	11	N	2 x 14' x 8' 2 x 32' x 8'	736	s.f.
South Manufacturing Room, Bay 2 area, file room	Drywall joint compound	Undamaged	14	N	736' x 50%	368	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Bay 2 area, tool room	2' x 4', white smooth light texture lay-in ceiling tile	Undamaged	62	N	12' x 22'	264	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Human Resources reception area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	16' x 18'	288	s.f.
Human Resources reception area	Drywall	Undamaged	11	N	16' x 2 x 8' 18' x 2 x 8'	544	s.f.
Human Resources reception area	Drywall joint compound	Undamaged	14	N	544' x 50%	272	s.f.
Human Resources reception area	Arrow pattern vinyl wall covering	Undamaged	17	N	16' x 2 x 8' 18' x 2 x 8'	544	s.f.
Human Resources reception area	Tan cove molding	Undamaged	7	N	16' x 2 x 4" 18' x 2 x 4"	27	s.f.
Human Resources reception area	Fire door and frame	Unsampled	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lobby area	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	16' x 14'	224	s.f.
Lobby area	Drywall	Undamaged	11	N	16' x 2 x 8' 14' x 2 x 8'	480	s.f.
Lobby area	Drywall joint compound	Undamaged	14	N	480' x 50%	240	s.f.
Lobby area	Tan cove molding	Undamaged	7	N	2 x 16' x 4" 2 x 14' x 4"	24	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North warehouse shipping office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 24'	192	s.f.
North warehouse shipping office	Dark brown cove molding	Undamaged	69	N	2 x 8' x 4" 2 x 24' x 4"	25	s.f.
North warehouse shipping office	12" x 12", tan floor tile	Undamaged	73	N	8' x 24'	192	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Restroom off main lobby area	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	6' x 8'	48	s.f.
Restroom off main lobby area	Drywall	Undamaged	11	N	6' x 2 x 8' 8' x 2 x 8'	224	s.f.
Restroom off main lobby area	Drywall joint compound	Undamaged	14	N	224' x 50%	112	s.f.
Restroom off main lobby area	Blue, red and brown small vertical/horizontal pattern vinyl wall covering	Undamaged	9	N	6' x 2 x 8' 8' x 2 x 8'	224	s.f.
Restroom off main lobby area	Tan cove molding	Undamaged	7	N	2 x 6' x 4" 2 x 8' x 4"	11	s.f.
Restroom off main lobby area	12" x 12", brown floor tile with 1/4" squares	Undamaged	1	N	6' x 8'	48	s.f.
Restroom off main lobby area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Restroom off main lobby area	9" x 9", cream floor tile	Undamaged	5	Y	6' x 8'	48	s.f.

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Receptionist area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 14'	84	s.f.
Receptionist area	Drywall	Undamaged	11	N	2 x 14' x 8' 2 x 8' x 8'	352	s.f.
Receptionist area	Drywall joint compound	Undamaged	14	N	352' x 50%	176	s.f.
Receptionist area	Arrow pattern vinyl wall covering	Undamaged	17	N	2 x 14' x 8' 2 x 8' x 8'	352	s.f.
Receptionist area	Tan cove molding	Undamaged	7	N	2 x 14' x 4" 2 x 8' x 4"	16	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Entryway	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	8' x 10'	80	s.f.
Entryway	Drywall	Undamaged	11	N	2 x 8' x 8'	128	s.f.
Entryway	Drywall joint compound	Undamaged	14	N	128' x 50%	64	s.f.
Entryway	Tan cove molding	Undamaged	7	N	10' x 2 x 4" 8' x 4"	11	s.f.
Entryway	12" x 12", brown floor tile with 1/4" squares	Undamaged	1	N	8' x 10'	80	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Human Resources office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 14'	168	s.f.
Human Resources office area	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 14' x 8'	416	s.f.
Human Resources office area	Drywall joint compound	Undamaged	14	N	416' x 50%	208	s.f.
Human Resources office area	Arrow pattern vinyl wall covering	Undamaged	17	N	2 x 12' x 8' 2 x 14' x 8'	416	s.f.
Human Resources office area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Executive office area, center of south side	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	14' x 14'	196	s.f.
Executive office area, center of south side	Drywall	Undamaged	11	N	14' x 4 x 8'	448	s.f.
Executive office area, center of south side	Drywall joint compound	Undamaged	14	N	448' x 50%	224	s.f.
Executive office area, center of south side	Maroon vinyl wall covering	Undamaged	21	N	2 x 28' x 8'	448	s.f.
Executive office area, restroom and closet	12" x 12", white splined ceiling tile with fissures	Undamaged	81	N	5' x 5' 4' x 5'	45	s.f.
Executive office area, closet	Light heat shield	Undamaged	79	Y	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Women's restroom, SE area west of lobby area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 6'	60	s.f.
Women's restroom, SE area west of lobby area	Drywall	Undamaged	11	N	3' x 10' x 2 3' x 6' x 2	96	s.f.
Women's restroom, SE area west of lobby area	Drywall joint compound	Undamaged	14	N	96' x 50%	48	s.f.
Women's restroom, SE area west of lobby area	Blue, red and brown small vertical/horizontal lined vinyl wall covering	Undamaged	9	N	3' x 10' x 2 3' x 6' x 2	96	s.f.

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE hallway off south east/west hallway, leading to restroom and closet	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	3' x 12'	36	s.f.
SE hallway off south east/west hallway, leading to restroom and closet	Drywall	Undamaged	11	N	2 x 12' x 8'	192	s.f.
SE hallway off south east/west hallway, leading to restroom and closet	Drywall joint compound	Undamaged	14	N	192' x 50%	96	s.f.
SE hallway off south east/west hallway, leading to restroom and closet	Arrow pattern vinyl wall covering	Undamaged	17	N	2 x 12' x 8'	192	s.f.
SE hallway off south east/west hallway, leading to restroom and closet	Tan cove molding	Undamaged	7	N	2 x 12' x 4"	10	s.f.
SE hallway off south east/west hallway, leading to restroom and closet	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
South east/west hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 84'	504	s.f.
South east/west hallway	Drywall	Undamaged	11	N	84' x 8' x 2 2 x 3' x 8'	1,400	s.f.
South east/west hallway	Drywall joint compound	Undamaged	14	N	1,400' x 50%	700	s.f.
South east/west hallway	Folded leaf pattern vinyl wall covering	Undamaged	19	N	84' x 8' x 2 2 x 3' x 8'	1,400	s.f.
South east/west hallway	Tan cove molding	Undamaged	7	N	84' x 2' x 4" 2 x 3' x 4"	69	s.f.
South east/west hallway	Aircell pipe straight insulation	Undamaged	25	Υ		65	l.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Men's restroom off south hallway area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 14'	84	s.f.
Men's restroom off south hallway area	Drywall	Undamaged	11	N	3' x 6' x 2 3' x 14' x 2	120	s.f.
Men's restroom off south hallway area	Drywall joint compound	Undamaged	14	N	120' x 50%	60	s.f.
Men's restroom off south hallway area	Blue, red, brown vertical/ horizontal pattern vinyl wall covering	Undamaged	9	N	3' x 6' x 2 3' x 14' x 2	120	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
West office, south side, center	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	16' x 18'	288	s.f.
West office, south side, center	Drywall	Undamaged	11	N	2 x 16' x 8' 2 x 18' x 8'	544	s.f.
West office, south side, center	Drywall joint compound	Undamaged	14	N	544' x 50%	272	s.f.
West office, south side, center	White vinyl wall covering	Undamaged	32	N	2 x 16' x 8' 2 x 18' x 8'	544	s.f.
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office area west of south center reception area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	18' x 8'	144	s.f.
Office area west of south center reception area	Drywall	Undamaged	11	N	2 x 18' x 8' 2 x 8' x 8'	416	s.f.
Office area west of south center reception area	Drywall joint compound	Undamaged	14	N	416' x 50%	208	s.f.
Office area west of south center reception area	Red and blue vertical stripes vinyl wall covering	Undamaged	30	N	2 x 18' x 8' 2 x 8' x 8'	416	s.f.
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### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW corner office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	Ν	10' x 14'	140	s.f.
SW corner office area	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
SW corner office area	Drywall joint compound	Undamaged	14	N	384' x 50%	192	s.f.
SW corner office area	Red and blue vertical stripes vinyl wall covering	Undamaged	30	N	10' x 8' 14' x 8'	192	s.f.
SW corner office area	Transite panels above cinderblock walls	Undamaged	34	Υ		150	s.f.

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Sprinkler system/SW corner storage area	Transite panels above cinderblock walls	Undamaged	34	Υ	-	15	s.f.
Sprinkler system/SW corner storage area	Red paint	Undamaged	PB-02	Y (Lead)	-	30	l.f.

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW entryway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	6' x 6'	36	s.f.
SW entryway	Drywall	Undamaged	11	N	6' x 8' x 2	96	s.f.
SW entryway	Drywall joint compound	Undamaged	14	N	96' x 50%	48	s.f.
SW entryway	Tan cove molding	Undamaged	7	N	2 x 6' x 4"	5	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Center reception area of tool division	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	20' x 12'	240	s.f.
Center reception area of tool division	Drywall	Undamaged	11	N	2 x 20' x 8' 1 x 12' x 8'	416	s.f.
Center reception area of tool division	Drywall joint compound	Undamaged	14	N	416' x 50%	208	s.f.
Center reception area of tool division	Folded leaf pattern vinyl wall covering	Undamaged	19	N	2 x 20' x 8' 1 x 12' x 8'	416	s.f.
Center reception area of tool division	Tan cove molding	Undamaged	7	N	2 x 20' x 4" 2 x 12' x 4"	26	s.f.
Center reception area of tool division	White sink undercoating	Undamaged	36	N	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Center area, open area, Sales/Accounting	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	24' x 27' 36' x 18'	1,296	s.f.
Center area, open area, Sales/Accounting	Drywall	Undamaged	11	N	24' x 8' 27' x 8' 36' x 2 x 8' 18' x 2 x 8'	1,272	s.f.
Center area, open area, Sales/Accounting	Drywall joint compound	Undamaged	14	N	1,272' x 50%	636	s.f.
Center area, open area, Sales/Accounting	Cream vinyl wall covering with squares	Undamaged	23	N	24' x 8' 27' x 8' 36' x 2 x 8' 18' x 2 x 8'	1,272	s.f.
Center area, open area, Sales/Accounting	Tan cove molding	Undamaged	7	N	24' x 2 x 4" 36' x 2 x 4" 18' x 2 x 4"	62	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Telecommunications room, center of area Sales/Accounting	Drywall	Undamaged	11	N	8' x 13'	104	s.f.
Telecommunications room, center of area Sales/Accounting	Drywall joint compound	Undamaged	14	N	104' x 50%	52	s.f.
Telecommunications room, center of area Sales/Accounting	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 13' x 4"	16	s.f.
Telecommunications room, center of area Sales/Accounting	Rust colored linoleum	Undamaged	83	Υ	8' x 13'	104	s.f.
Telecommunications room, center of area Sales/Accounting	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE office area in center finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	Ν	12' x 15'	180	s.f.
SE office area in center finance area	Drywall	Undamaged	11	N	2 x 15' x 8' 2 x 12' x 8'	432	s.f.
SE office area in center finance area	Drywall joint compound	Undamaged	14	N	432' x 50%	216	s.f.
SE office area in center finance area	Red and blue vertical stripes vinyl wall covering	Undamaged	30	N	15' x 8' 12' x 8'	216	s.f.
SE office area in center finance area	Tan cove molding	Undamaged	7	N	2 x 15' x 8' 2 x 12' x 8'	432	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE corner office in central Sales/Marketing area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 10'	100	s.f.
NE corner office in central Sales/Marketing area	Drywall	Undamaged	11	N	4 x 10' x 8'	320	s.f.
NE corner office in central Sales/Marketing area	Drywall joint compound	Undamaged	14	N	320' x 50%	160	s.f.
NE corner office in central Sales/Marketing area	Arrow head vinyl wall covering	Undamaged	17	N	4 x 10' x 8'	320	s.f.
NE corner office in central Sales/Marketing area	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 10' x 4"	960	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW corner office area from center Sales/Marketing	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 10'	100	s.f.
NW corner office area from center Sales/Marketing	Drywall	Undamaged	11	N	4 x 10' x 8'	320	s.f.
NW corner office area from center Sales/Marketing	Drywall joint compound	Undamaged	14	N	320' x 50%	160	s.f.
NW corner office area from center Sales/Marketing	Cream vinyl wall covering with squares	Undamaged	23	N	4 x 10' x 8'	320	s.f.
NW corner office area from center Sales/Marketing	Tan cove molding	Undamaged	7	N	4 x 10' x 4"	16	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Center hall, office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	Z	4' x 48'	192	s.f.
Center hall, office area	Drywall	Undamaged	11	N	2 x 48' x 8'	768	s.f.
Center hall, office area	Drywall joint compound	Undamaged	14	N	768' x 50%	384	s.f.
Center hall, office area	Folded leaf pattern vinyl wall covering	Undamaged	19	N	2 x 48' x 8'	768	s.f.
Center hall, office area	Tan cove molding	Undamaged	7	N	2 x 48' x 4"	38	s.f.
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### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Custodial closet, west side of center hall area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	3' x 5'	15	s.f.
Custodial closet, west side of center hall area	Drywall	Undamaged	11	N	2 x 3' x 8' 1 x 5' x 8'	88	s.f.
Custodial closet, west side of center hall area	Drywall joint compound	Undamaged	14	N	88' x 50%	44	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Central copy area, west of center hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 14'	140	s.f.
Central copy area, west of center hallway	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
Central copy area, west of center hallway	Drywall joint compound	Undamaged	14	N	384' x 50%	192	s.f.
Central copy area, west of center hallway	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
Central copy area, west of center hallway	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 14' x 4"	19	s.f.
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### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
East office off center hallway area, south of break room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 16'	192	s.f.
East office off center hallway area, south of break room	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 16' x 8'	448	s.f.
East office off center hallway area, south of break room	Drywall joint compound	Undamaged	14	N	448' x 50%	224	s.f.
East office off center hallway area, south of break room	White vinyl wall covering	Undamaged	32	N	2 x 12' x 8' 2 x 16' x 8'	448	s.f.
East office off center hallway area, south of break room	Tan cove molding	Undamaged	7	N	2 x 12' x 4" 2 x 16' x 4"	23	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Conference/training room, east of center break/ kitchenette area	2' x 2', white drop ceiling tile with rough texture	Undamaged	3	N	13' x 24'	312	s.f.
Conference/training room, east of center break/ kitchenette area	Drywall	Undamaged	11	N	2 x 13' x 8' 2 x 24' x 8'	592	s.f.
Conference/training room, east of center break/ kitchenette area	Drywall joint compound	Undamaged	14	N	592' x 50%	296	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Center kitchenette/break area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	13' x 16'	208	s.f.
Center kitchenette/break area	Drywall	Undamaged	11	N	2 x 13' x 8' 2 x 16' x 8'	464	s.f.
Center kitchenette/break area	Drywall joint compound	Undamaged	14	N	464' x 50%	232	s.f.
Center kitchenette/break area	Folded leaf pattern vinyl wall covering	Undamaged	19	N	2 x 13' x 8' 2 x 16' x 8'	464	s.f.
Center kitchenette/break area	Tan cove molding	Undamaged	7	N	2 x 13' x 4" 2 x 16' x 4"	23	s.f.
Center kitchenette/break area	White sink undercoating	Undamaged	36	N	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
North center hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	14' x 5'	70	s.f.
North center hallway	Drywall	Undamaged	11	N	2 x 14' x 8'	224	s.f.
North center hallway	Drywall joint compound	Undamaged	14	N	224' x 50%	112	s.f.
North center hallway	Folded leaf pattern vinyl wall covering	Undamaged	19	N	2 x 14' x 8'	224	s.f.
North center hallway	Tan cove molding	Undamaged	7	N	2 x 14' x 4"	11	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
West office area, SW corner office	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 10'	80	s.f.
West office area, SW corner office	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 10' x 8'	288	s.f.
West office area, SW corner office	Drywall joint compound	Undamaged	14	N	288' x 50%	144	s.f.
West office area, SW corner office	Triangle and square pattern vinyl wall covering	Undamaged	40	N	2 x 8' x 8' 2 x 10' x 8'	288	s.f.
West office area, SW corner office	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 10' x 4"	14	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Women's restroom, NE side of center hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 14'	168	s.f.
Women's restroom, NE side of center hallway	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 14' x 8'	416	s.f.
Women's restroom, NE side of center hallway	Drywall joint compound	Undamaged	14	N	416' x 50%	208	s.f.
Women's restroom, NE side of center hallway	Gray seashell pattern vinyl wall covering	Undamaged	38	N	2 x 12' x 5' 2 x 14' x 5'	260	s.f.
Women's restroom, NE side of center hallway	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW hallway of west area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	3' x 10'	30	s.f.
SW hallway of west area	Drywall	Undamaged	11	N	2 x 10' x 8'	160	s.f.
SW hallway of west area	Drywall joint compound	Undamaged	14	N	160' x 50%	80	s.f.
SW hallway of west area	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 10' x 8'	160	s.f.
SW hallway of west area	Tan cove molding	Undamaged	7	N	2 x 10' x 4"	8	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
West open office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	34' x 62'	2,108	s.f.
West open office area	Drywall	Undamaged	11	N	2 x 34' x 8' 2 x 62' x 8'	1,536	s.f.
West open office area	Drywall joint compound	Undamaged	14	N	1,536' x 50%	768	s.f.
West open office area	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 34' x 8' 2 x 62' x 8'	2,108	s.f.
West open office area	Tan cove molding	Undamaged	7	N	2 x 34' x 4" 2 x 62' x 4"	77	s.f.
West open office area	Aircell pipe straight insulation	Undamaged	25	Υ	-	40	l.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
- Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main
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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE office in west area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 14'	140	s.f.
SE office in west area	Drywall	Undamaged	11	N	2 x 10' x 8' 1 x 14' x 8'	272	s.f.
SE office in west area	Drywall joint compound	Undamaged	14	N	272' x 50%	136	s.f.
SE office in west area	Traingle and square pattern vinyl wall covering	Undamaged	40	N	8' x 14' 8' x 10'	192	s.f.
SE office in west area	Tan cove molding	Undamaged	7	N	2 x 14' x 4" 2 x 10' x 4"	19	s.f.
SE office in west area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Computer room, west office area	2' x 4', white, lay-in ceiling tile with flat surface	Undamaged	42	N	10' x 20'	200	s.f.
Computer room, west office area	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 20' x 8'	480	s.f.
Computer room, west office area	Drywall joint compound	Undamaged	14	N	480' x 50%	240	s.f.
Computer room, west office area	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 20' x 4"	24	s.f.
Computer room, west office area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
West office area, office north of computer room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 14'	140	s.f.
West office area, office north of computer room	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
West office area, office north of computer room	Drywall joint compound	Undamaged	14	N	384' x 50%	192	s.f.
West office area, office north of computer room	Traingle and square pattern vinyl wall covering	Undamaged	40	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
West office area, office north of computer room	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 14' x 4"	19	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW office in finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 12'	120	s.f.
NW office in finance area	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 12' x 8'	352	s.f.
NW office in finance area	Drywall joint compound	Undamaged	14	N	352' x 50%	176	s.f.
NW office in finance area	Traingle and square pattern vinyl wall covering	Undamaged	40	N	2 x 10' x 8' 2 x 12' x 8'	352	s.f.
NW office in finance area	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 12' x 4"	18	s.f.
NW office in finance area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Copy area east of NW office in Finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	10' x 12'	120	s.f.
Copy area east of NW office in Finance area	Drywall	Undamaged	11	N	2 x 10' x 8' 2 x 12' x 8'	352	s.f.
Copy area east of NW office in Finance area	Drywall joint compound	Undamaged	14	N	352' x 50%	176	s.f.
Copy area east of NW office in Finance area	Cream wall covering with squares	Undamaged	23	N	2 x 10' x 8' 2 x 12' x 8'	352	s.f.
Copy area east of NW office in Finance area	Tan cove molding	Undamaged	7	N	2 x 10' x 4" 2 x 12' x 4"	18	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office north of check storage area, finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 10'	80	s.f.
Office north of check storage area, finance area	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 10' x 8'	288	s.f.
Office north of check storage area, finance area	Drywall joint compound	Undamaged	14	N	288' x 50%	144	s.f.
Office north of check storage area, finance area	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 10' x 4"	14	s.f.
Office north of check storage area, finance area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building _	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE corner office in finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	12' x 13'	156	s.f.
NE corner office in finance area	Drywall	Undamaged	11	N	2 x 12' x 8' 2 x 13' x 8'	400	s.f.
NE corner office in finance area	Drywall joint compound	Undamaged	14	N	400' x 50%	200	s.f.
NE corner office in finance area	Cream vinyl wall covering with squares	Undamaged	23	N	2 x 12' x 8' 2 x 13' x 8'	400	s.f.
NE corner office in finance area	Tan cove molding	Undamaged	7	N	2 x 12' x 4" 2 x 13' x 4"	20	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
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Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office north of check storage area, finance area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	8' x 10'	80	s.f.
Office north of check storage area, finance area	Drywall	Undamaged	11	N	2 x 8' x 8' 2 x 10' x 8'	288	s.f.
Office north of check storage area, finance area	Drywall joint compound	Undamaged	14	N	288' x 50%	144	s.f.
Office north of check storage area, finance area	Traingle and square pattern vinyl wall covering	Undamaged	40	N	2 x 8' x 8' 2 x 10' x 8'	288	s.f.
Office north of check storage area, finance area	Tan cove molding	Undamaged	7	N	2 x 8' x 4" 2 x 8' x 4"	14	s.f.
Office north of check storage area, finance area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
_			
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality and Design, open office area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	52' x 65'	3,380	s.f.
Quality and Design, open office area	Drywall	Undamaged	11	N	2 x 52' x 10' 2 x 65' x 10'	2,340	s.f.
Quality and Design, open office area	Drywall joint compound	Undamaged	14	N	2,340' x 50%	1,170	s.f.
Quality and Design, open office area	Blue, brown and purple vertical stripes vinyl wall covering	Undamaged	44	N	2 x 52' x 10' 2 x 65' x 10'	2,340	s.f.
Quality and Design, open office area	Gray cove molding	Undamaged	46	N	2 x 52' x 4" 2 x 65' x 4"	94	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE conference room in Quality/Design area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	13' x 22'	286	s.f.
SE conference room in Quality/Design area	Drywall	Undamaged	11	N	2 x 13' x 10' 2 x 22' x 10'	700	s.f.
SE conference room in Quality/Design area	Drywall joint compound	Undamaged	14	N	700' x 50%	350	s.f.
SE conference room in Quality/Design area	Blue, brown and purple vertical stripes vinyl wall covering	Undamaged	44	N	2 x 13' x 10' 2 x 22' x 10'	700	s.f.
SE conference room in Quality/Design area	Gray cove molding	Undamaged	46	N	2 x 13' x 4" 2 x 22' x 4"	28	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Center office area, south end of Quality/Design area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	11' x 14'	154	s.f.
Center office area, south end of Quality/Design area	Drywall	Undamaged	11	N	2 x 11' x 10' 2 x 14' x 10'	500	s.f.
Center office area, south end of Quality/Design area	Drywall joint compound	Undamaged	14	N	500' x 50%	250	s.f.
Center office area, south end of Quality/Design area	Double sided arrow pattern vinyl wall covering	Undamaged	48	N	2 x 11' x 10' 2 x 14' x 10'	500	s.f.
Center office area, south end of Quality/Design area	Gray cove molding	Undamaged	46	N	2 x 11' x 4" 2 x 14' x 4"	20	s.f.
Center office area, south end of Quality/Design area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18898-1	Date	3/9/2004
Duilding		Floor	
Building	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW corner office in Quality/Design area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	Ν	11' x 14'	154	s.f.
SW corner office in Quality/Design area	Drywall	Undamaged	11	N	2 x 11' x 10' 2 x 11' x 14'	528	s.f.
SW corner office in Quality/Design area	Drywall joint compound	Undamaged	14	N	528' x 50%	264	s.f.
SW corner office in Quality/Design area	Blue, brown and purple vertical stripes vinyl wall covering	Undamaged	44	N	11' x 10'	110	s.f.
SW corner office in Quality/Design area	Gray cove molding	Undamaged	46	N	2 x 11' x 4" 2 x 14' x 4"	20	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18898-1	Date	3/9/2004
Building E	Eagle Picher, 135 E. South Street, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Closet/storage area, SW entrance to Quality area	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	75	N	-	8	s.f.
Closet/storage area, SW entrance to Quality area	Drywall	Undamaged	11	N	8' x 8'	64	s.f.
Closet/storage area, SW entrance to Quality area	Drywall joint compound	Undamaged	14	N	64' x 50%	32	s.f.
Closet/storage area, SW entrance to Quality area	Gray cove molding	Undamaged	46	N	11' x 4"	4	s.f.
Closet/storage area, SW entrance to Quality area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.
							42.2



Photo 1 – 12" x 12" floor tile, main entrance

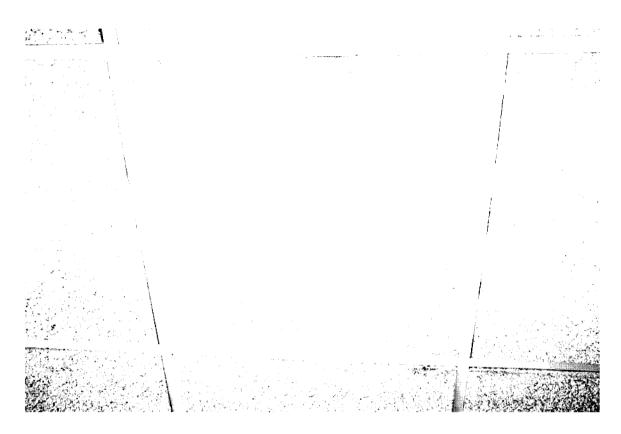


Photo 2-2' x 2', white drop-in ceiling tile, main entrance

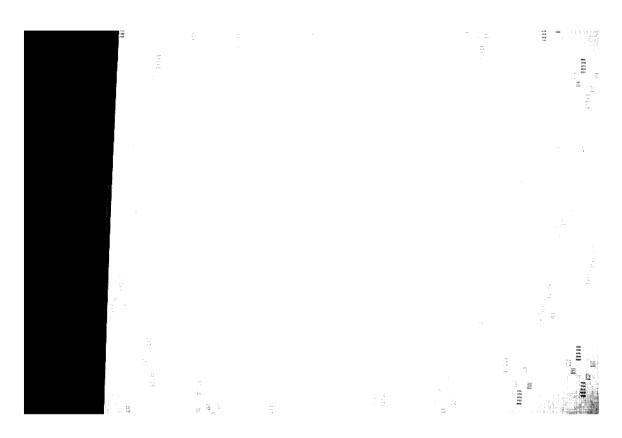


Photo 3 – Blue, red, brown vinyl wall covering with vertical lines, main lobby, restroom

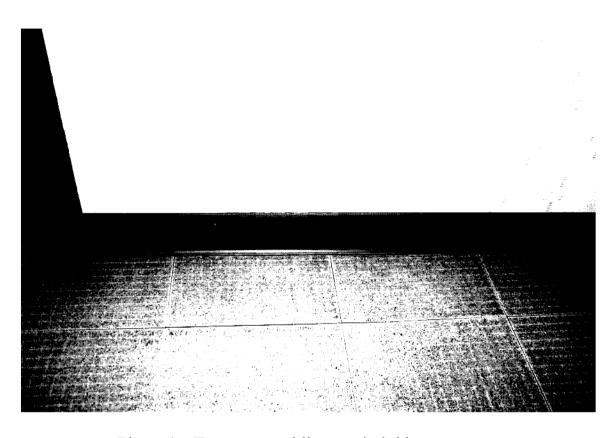


Photo 4 – Tan cove molding, main lobby, restroom

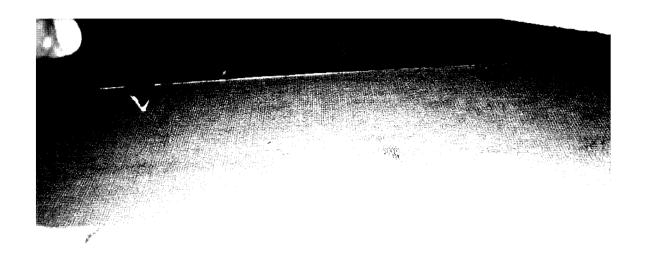


Photo 5 – Burlap pattern vinyl wall covering, beneath south hallway drywall

Photo 6 – Closed leaf pattern vinyl wall covering, south hallway, west of lobby

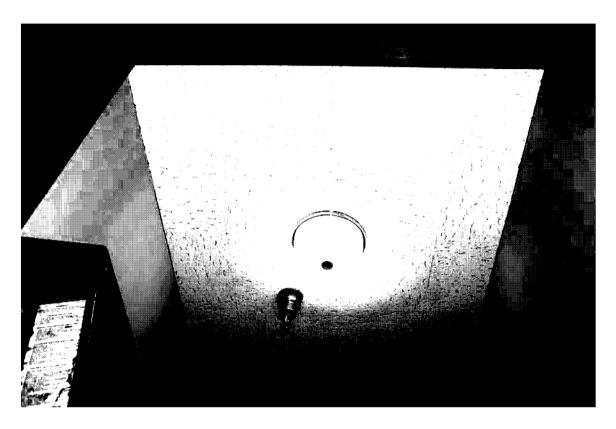


Photo 7 - 1' x 1', white ceiling tile with fissures



Photo 8 – Light heat shield, executive office in south hallway off main lobby

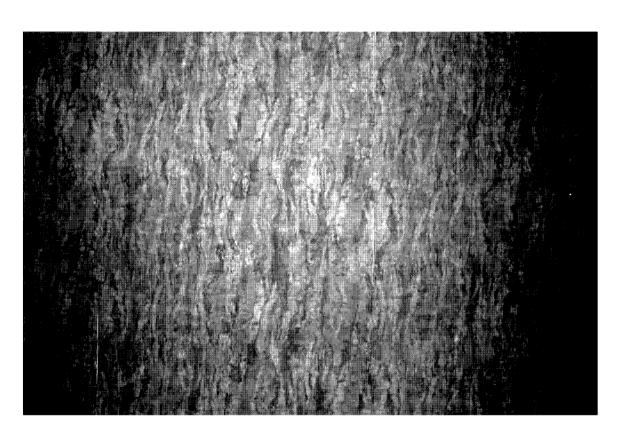


Photo 9 – Maroon vinyl wall covering, executive office in south hallway, off main lobby

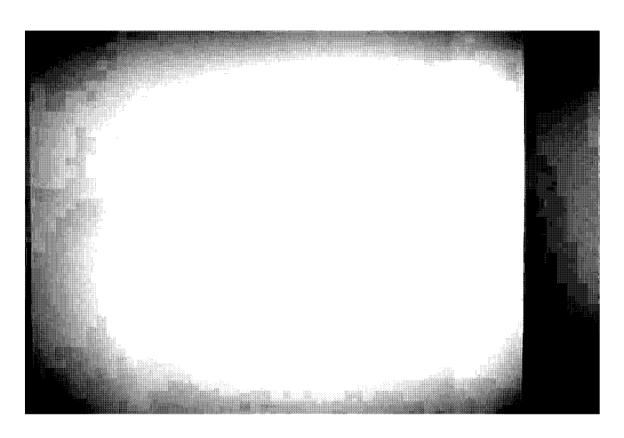


Photo 10 – Cream colored wall paint, executive office in south hallway, off main lobby



Photo 11 – Pipe straight insulation, above ceiling in men's restroom in south hallway

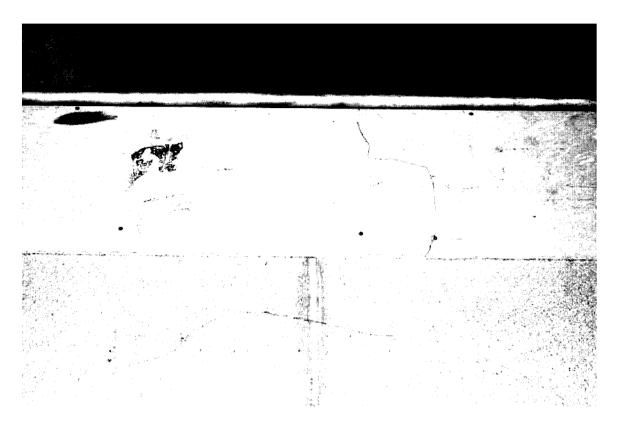


Photo 12 – Transite panel, sprinkler room in SW corner of south hallway

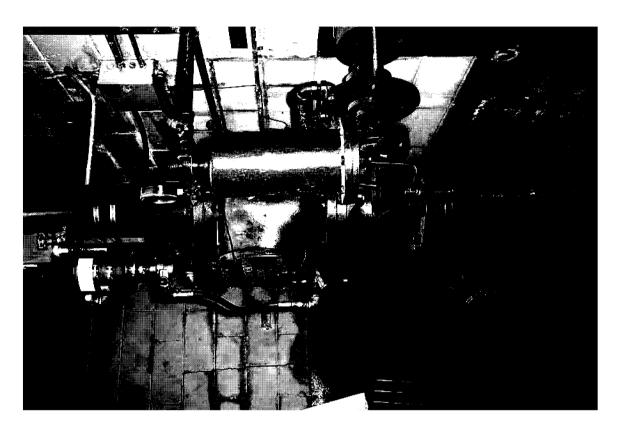


Photo 13 – Red paint, sprinkler system pipes in sprinkler room, south hallway, SW corner

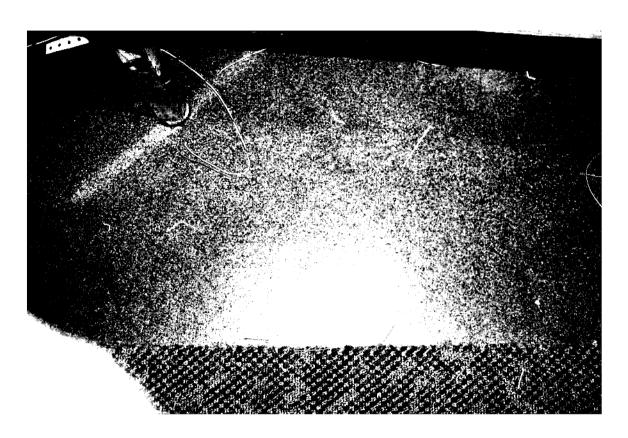


Photo 14 – Light brown (rust colored) linoleum, telecommunication room in Sales/Marketing area



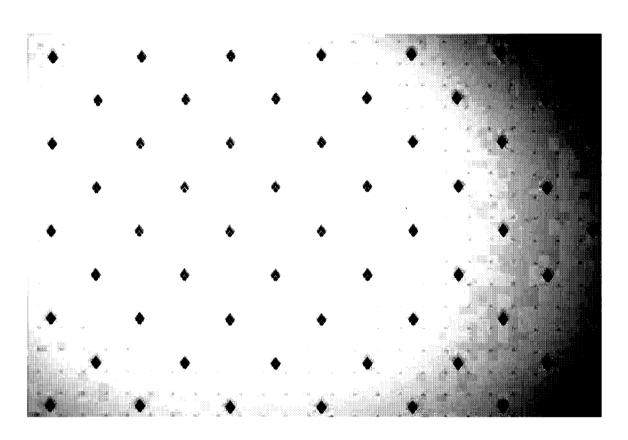


Photo 16 – Arrow pattern vinyl wall covering, NE office of Sales/Marketing area

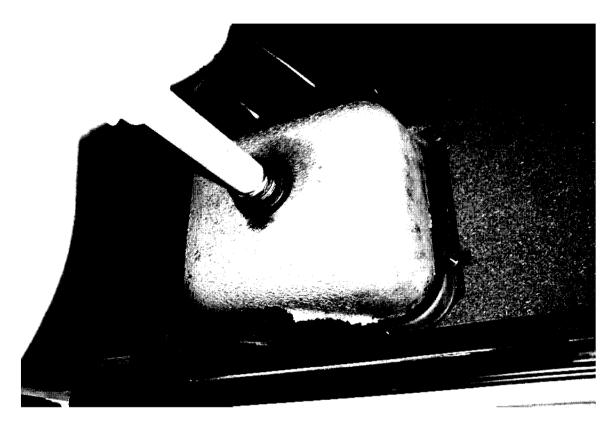


Photo 17 – White sink undercoating, kitchenette area, center

Photo 18 – White vinyl wall covering, training room off center kitchenette area

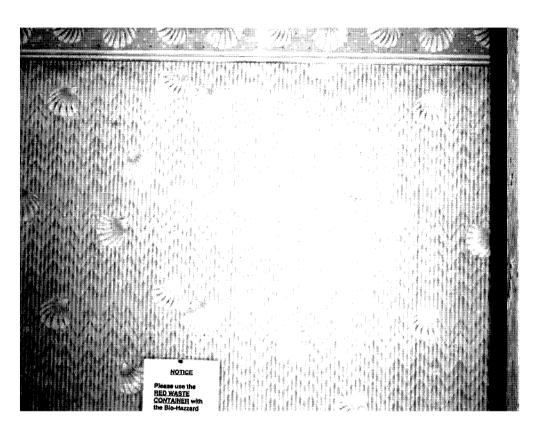


Photo 19 – Seashell pattern vinyl wall covering, NE women's restroom, off central kitchenette area

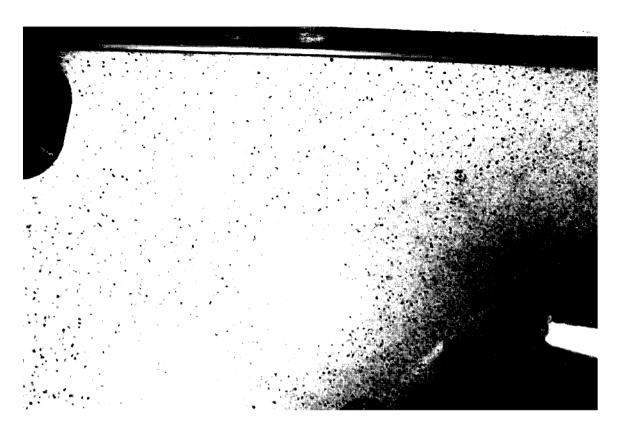
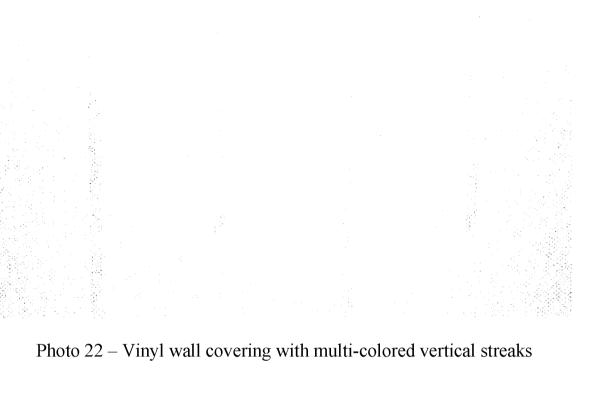


Photo 20 – Gray mosaic pattern linoleum with multi-colored specks, north central entrance way to manufacturing area



Photo 21 – Gray cove molding, north central entrance way to manufacturing area



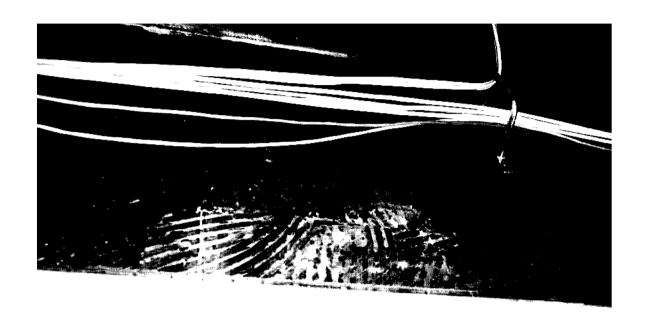


Photo 23 – Cork board and mastic



Photo 24 – Drywall and drywall joint compound

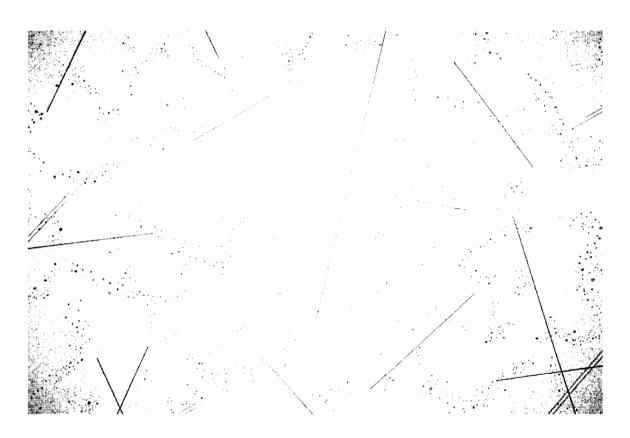


Photo 25 – Pick up sticks decorated vinyl wall covering



Photo 26 – Tan marble vinyl wall covering

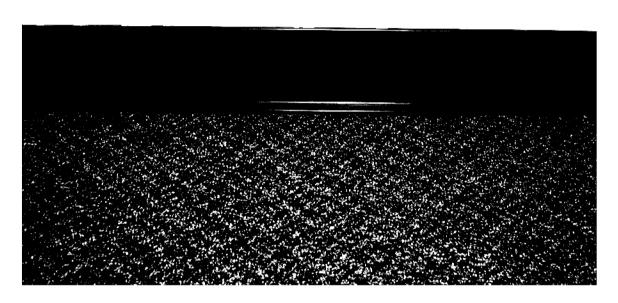


Photo 27 – Black cove molding and associated mastic

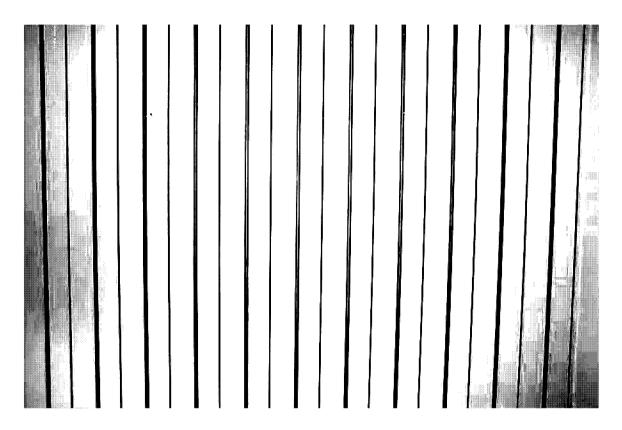


Photo 28 – Red and blue vertical striped vinyl wall covering

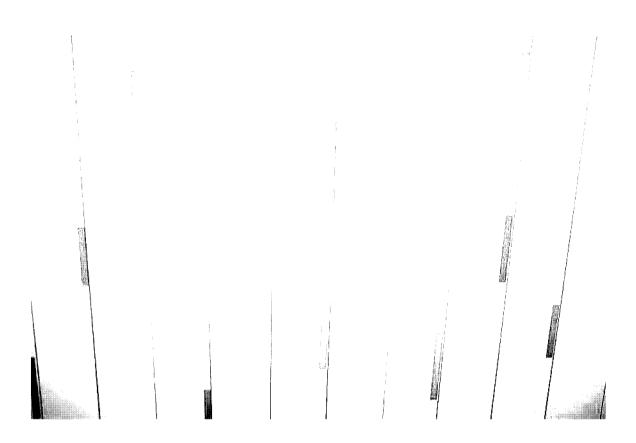
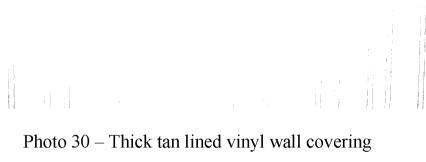


Photo 29 - Blue, brown and purple vertical striped vinyl wall covering



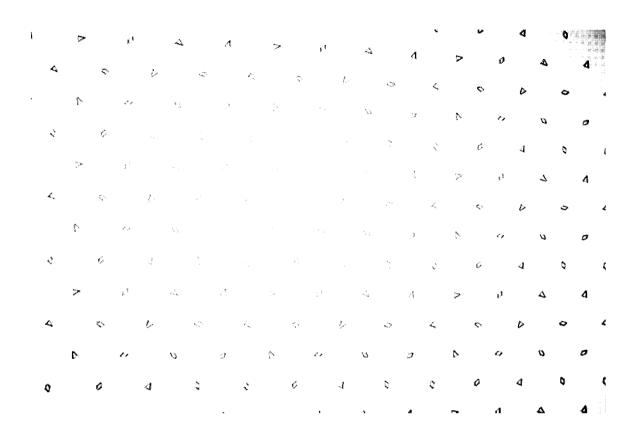


Photo 31 – Square and triangle pattern vinyl wall covering

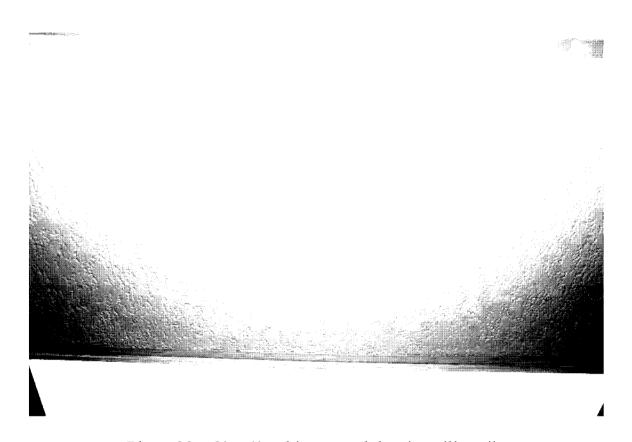


Photo 32 - 2' x 4', white smooth lay-in ceiling tile

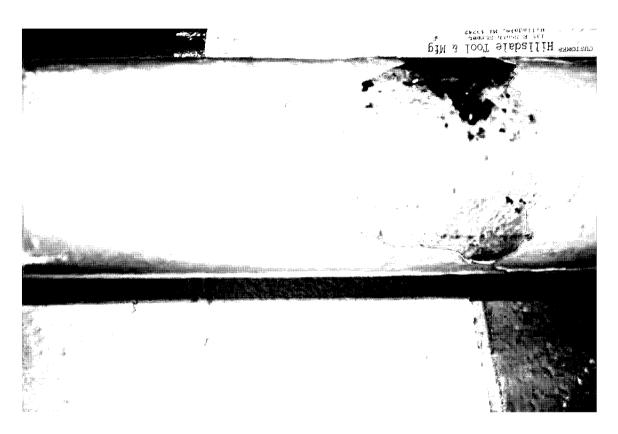


Photo 33 – Yellow paint, support beam



Photo 34 - 2' x 4', white lay-in ceiling tile with pin holes and fissures

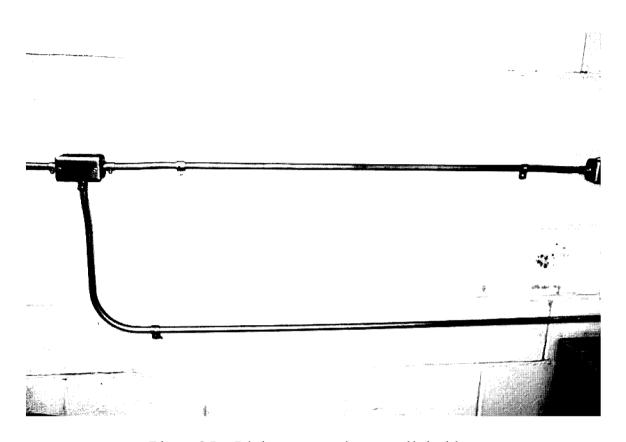


Photo 35 – Light green paint over light blue

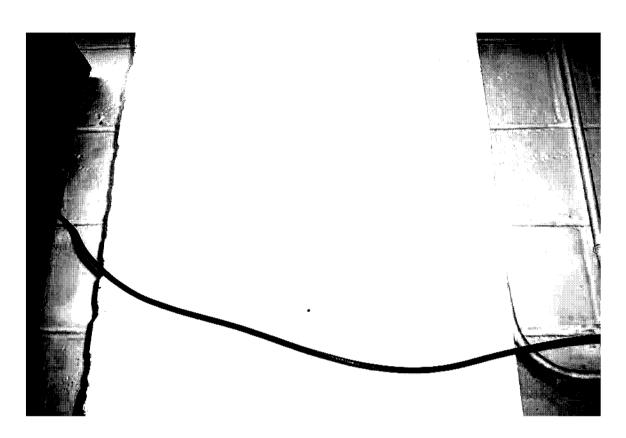


Photo 36 – Cream paint over blue



Photo 37 – Gray paint over red

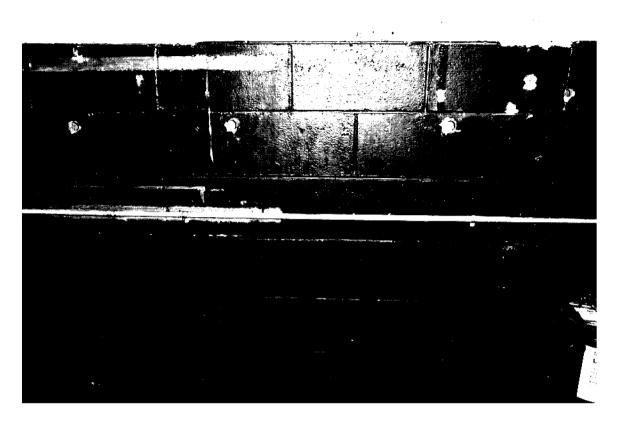


Photo 38 – Dark green paint, Bay 4

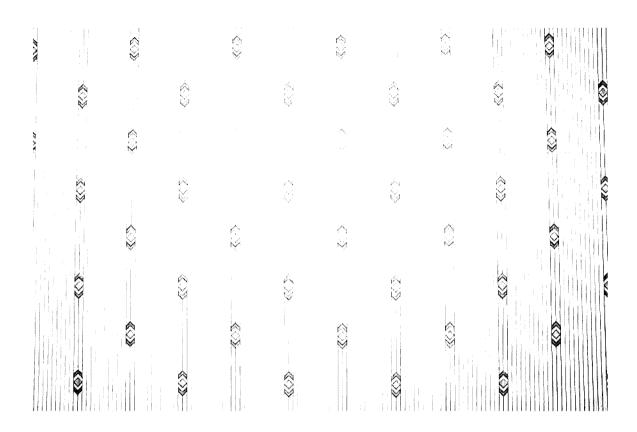


Photo 39 – Double sided arrow pattern vinyl wall covering



Photo 40 – Roof, facing west



Photo 41 – Roof, facing south



Photo 42 – Caulk, outside gas heating unit

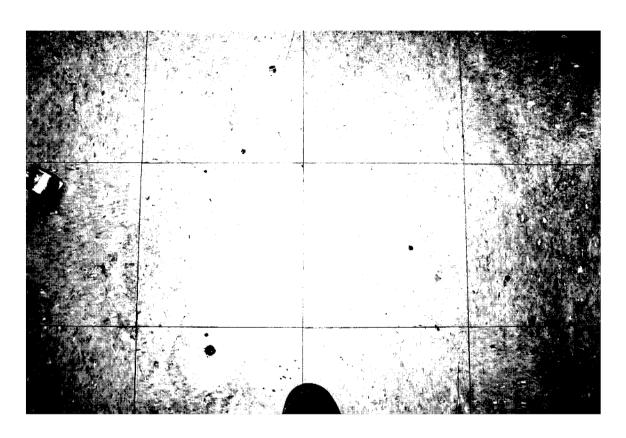


Photo 43 - 12" x 12", gray marble floor tile, NE office, shipping area

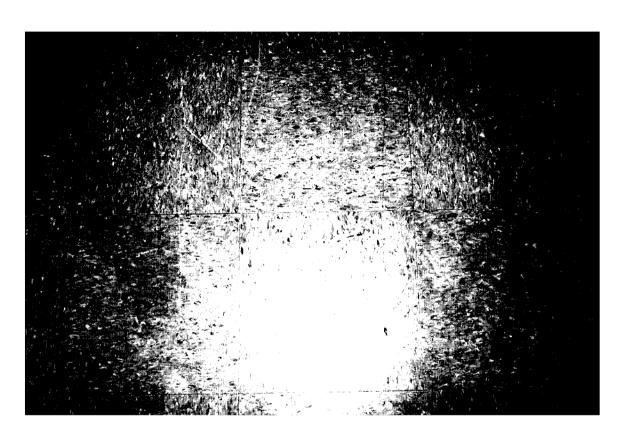


Photo 44 – Tan floor tile with specks, NW office, shipping area

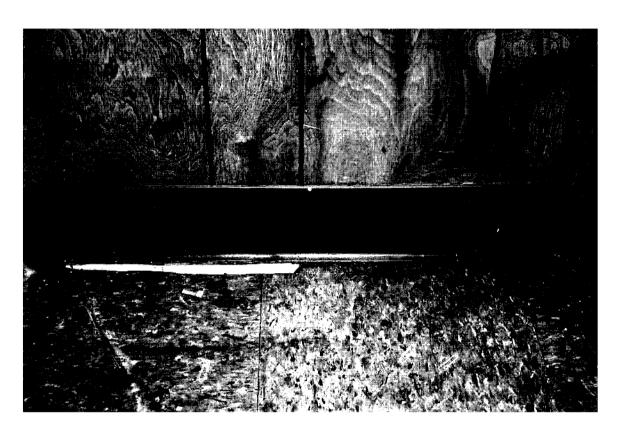


Photo 45 – Brown cove molding, NW office, shipping area

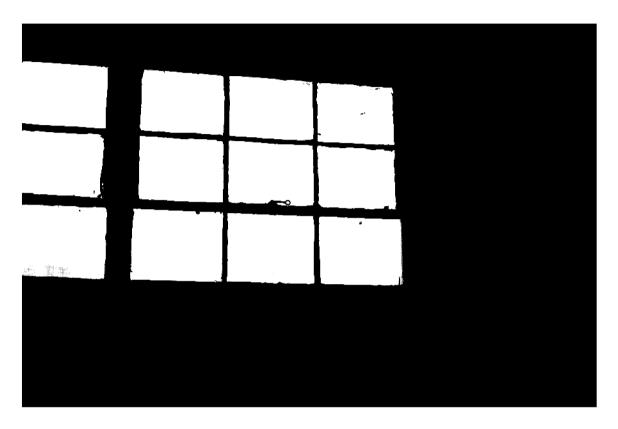


Photo 46 – Window glazing compound, Bay 5, east wall

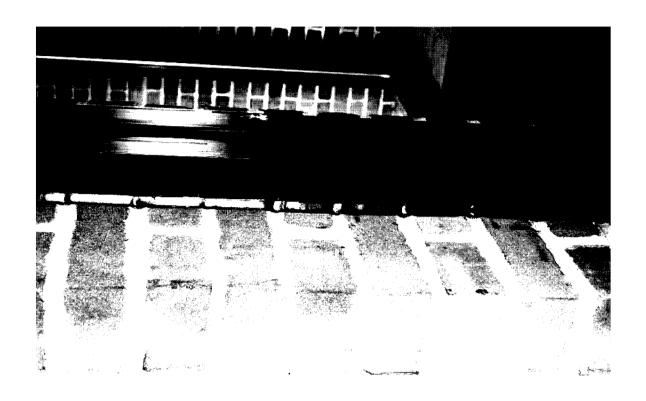


Photo 47 – Black window caulk, inside lobby door frame



Photo 48 – Gray window/building caulk, exterior of building

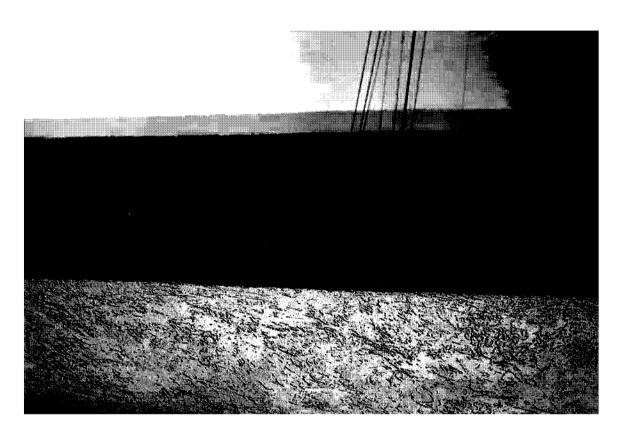


Photo 49 – Dark brown exterior window caulk

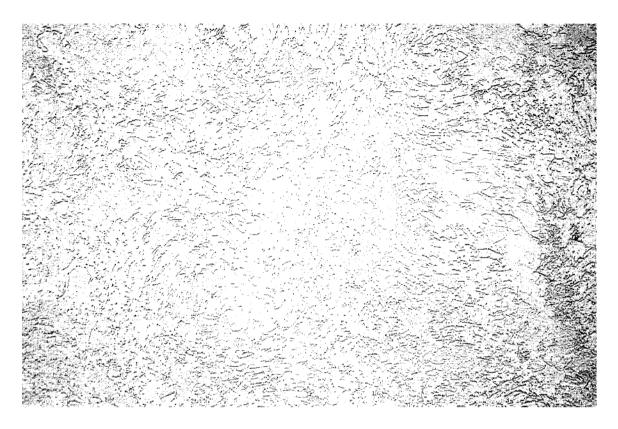


Photo 50 – Tan troweled on building wall, exterior, east wall

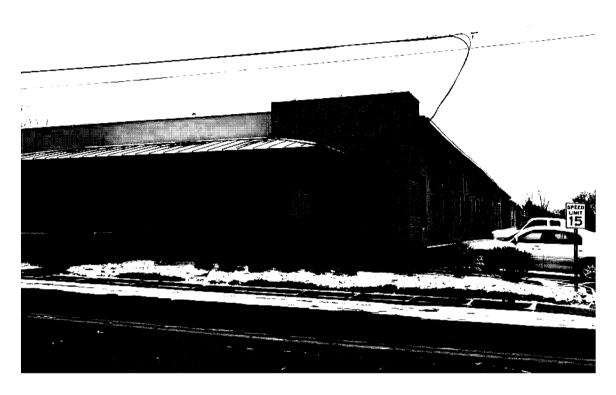


Photo 51 – Front of building, facing north

## ARCADIS

Appendix F

Boring Logs

									Boring N	/o · :	SSG-1		
ARCAI	) S								Doming I		<u> </u>		
Soil Boring									Sheet:	1	of	1	
Project Name: Project Number:	•		outh Street				d: 03/09/2004	_ Logger: _ Editor:	C. Seidel				
Project Number.  Project Location:					Da	te Complete	d: <u>03/09/2004</u> Weather C						
Depth	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class		Description				nstruction Details	
(feet)	11.10.10.1	- Country	()		(PP:)	7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	Topsoil, brown-black, roo	ots, dry.				2010.10	
1							Fill; black, sand, cinders, dry. Fill; Sand, yellowish-brown, some gravel, poorly sorted dry.						
2	-		28	NS	0.0		Fill; black, sand, silty, brick, sludge, some gra		some graver, m	OISt.			
3													
5							F71.11.1.1.1.1.10.10.10.10.10.10.10.10.10.						
	$\Lambda$						Fill; black sand, silt, little			t. 			
6 				NS		77 77 77 77 7 77 77 77 77 77 77 77	Peat, little sand, roots, bu	rown-black, ı	moist.				
/	1 V I		22				Sand, brown-gray, fine, s	some silt, we	ell sorted, wet.				
8 8 9			33		0.0		Sand, yellowish-brown, f	fine, little silt,	, well sorted, we	et.			
							Sand, gray-black, fine, lit	Wa					
 11	$\Lambda$						wet.	ule graver (~	.5%), well sorted	1,			
	1\/						Sand, yellowish-brown, f (<3%), wet.	îne, well sorl	ted, little gravel				
13			51	NS			Sand, yellowish-brown, f some coarse sand, little (	ine, poorly sogravel, wet.	orted, well grad	ed,			
14 14							Gravel, yellowish-brown, some coarse sand, some	well graded e fine sand, v	l, medium graind wet.	ed,			
15	<u>/                                    </u>							_					
Drilling Co.: Driller:	Prosoni Andrew						oling Method: <u>Geopro</u> pling Interval: <u>Continu</u>						
Drilling Method:							piling interval. <u>Contint</u> er Level Start: <u>7</u>						
Drilling Fluid:	None					Water	Level Finish: 7						
Remarks:	-	-		m 7 to 12 fee			erted to Well:						
	collectio	<u>οιι οτ grot</u>	ınawater sa	ımple.			Surface Elev.: North Coor:						
							East Coor:						

ARCAL	2ונ							Boring No.:	SSG-2
Soil Boring									
Project Name:		cher - So	outh Street			Date Starte	ed: <u>03/10/2004</u>	Sheet: 1 Logger: <u>C. Seidel</u>	of 1
Project Number:					Dat	e Complete	ed: <u>03/10/2004</u>	Editor: <u>JS</u>	
Project Location:	<u>Hillsdale</u>	<u>, MI</u>					Weather C	Conditions: Sun, 20's	
Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class		Description	Construction Details
1 1 2							Fill; sand, silt, gravel.		
3 4				NS					
5 _							Fill; sand, fine to coarse	e, cinders, yellowish-brown, dry.	
7							Sand, black, fine, silty, li	ittle gravel (<3%), wet.	
8 8 9			51	NS	0.1 - 0.2	<u> </u>	Peat, brown, organic, m	oist.	
9 10						\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
							medium and 5% coarse Sand, fine, light gray, we Sand, light gray, mediun gravel, wet. Sand, light gray to light l	graded, approximately 20% grained, little silt. ell sorted, wet. n grained, well graded, little brown, fine, well sorted (<3%	J
12  13			50	NS			medium grained), wet.		
14 14									
15 Drilling Co.:	Prosonic	`				Samı	l pling Method: <u>Geopr</u> e	ohe	1
Driller:	Andrew							uous	
Drilling Method:									
•	None						Level Finish: 10		
Remarks:		-		m 8 to 13 fee			erted to Well:		
	collection for initial	_		mple. Hand	-				
		<u> </u>				<u> </u>	East Coor:		

Project Name Fige   Parties   Started   O3/10/2004   Logger Johanhan Smith   Trigict Name   Sep   Scal 15/2 0002   Date Completed   O3/10/2004   Editor   JS   Project Location   Hillsdale, MI	ARCAL									Boring No.: S	
Depth   Semple   Se			iohor Sa	outh Stroot			Data Starta	A: 02/10/2004	Loggor		of 1
Project Location: Hillsdale, MI  Depth (seet)   Blow (five)   Blow (five)   Sample   D   PID (ppm)   Class   Description   Construction   Details    1	5	-									
Depth (feet)   Sample   Blow (feet)   Recovery   Sample   D   P D   USCS   Description   Construction   Cetails	-					Dat	e Complete				
Interval   Counts   Interval   Inter	1 Toject Location.	Illisuale	, 1911					vveatilei C	ZONGILIONS.	Olear, 203	
1	Depth (feet)	Sample Interval		Recovery (in.)	Sample ID	PID (ppm)			Description		
Sampling Method:   Geographe	N A						Concrete core				
Sampling Method:   Geographe    _	1\ /						Fill: fine sand, dark brow	n approvima	atoly 10% fine grayol		
33	1	{\ /						riii. iirle Sariu, dark brow	и, аррюхина	itely 10% line gravel.	
33		$  \setminus /  $									
33		1 \ /									
3	2	<del> </del>						Fill: fine sand, dark brow	n, some silve	er-gray cinders.	
3		]		33	NS						
A	2	$  \land  $		33	140						
Fine sand, dark brown to red, 10% fine gravel.	3	<del> </del>									
Fine sand, dark brown to red, 10% fine gravel.	_	] / \									
Fine sand, dark brown to red, 10% fine gravel.	4										
Fine sand, dark brown to red, 10% fine gravel.	<b>+</b>	1/ \									
Fine sand, dark brown to red, 10% fine gravel.		{/ \									
Fine sand, dark brown to red, 10% fine gravel.	5	V									
Fine sand, black	•	1						Fine sand, dark brown to	o red, 10% fir	ne gravel.	
Fine sand, black	<u> </u>	{\									
	6	\ /									
A		1\ /						Fine sand, black.			
A	_	{									
Fine sand, black.  Sand, gray, medium to fine grained, well sorted, odor present.  10  11  12  13  13  Drilling Co.: Prosonic Driller: Andrew Drilling Method: Geoprobe Drilling Method: Geoprobe Drilling Fluid: None Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Sampling Method: Geoprobe Water Level Start: 10  Water Level Finish: 10  Converted to Well: Yes No  Surface Elev: North Coor:	7	] \ /									
Fine sand, black.  Sand, gray, medium to fine grained, well sorted, odor present.  10  11  12  13  13  Drilling Co.: Prosonic Driller: Andrew Drilling Method: Geoprobe Drilling Method: Geoprobe Drilling Fluid: None Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Sampling Method: Geoprobe Water Level Start: 10  Water Level Finish: 10  Converted to Well: Yes No  Surface Elev: North Coor:		V					******				
Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.    Sand, gray, medium to fine grained, well sorted, odor present.	_	1		42	NS	185 - 469		Clay, green/gray.			
9	8	! /\ l									
9		/ \							ine grained, v	vell sorted, odor	
10		1/\						procent.			
11	9										
11		/ \									
11		1/ \									
13	10						M. 10 (10 (10 (10 (10 (10 (10 (10 (10 (10				
13	_										
13	11										
Drilling Co.: Prosonic Sampling Method: Geoprobe  Driller: Andrew Sampling Interval: Continuous  Drilling Method: Geoprobe Water Level Start: 10  Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Sumpling Method: Geoprobe Sampling Interval: Continuous  Water Level Finish: 10  Converted to Well: Yes No  Surface Elev.:  North Coor:											
Drilling Co.: Prosonic Sampling Method: Geoprobe  Driller: Andrew Sampling Interval: Continuous  Drilling Method: Geoprobe Water Level Start: 10  Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Sumpling Method: Geoprobe Sampling Interval: Continuous  Water Level Finish: 10  Converted to Well: Yes No  Surface Elev.:  North Coor:	<u> </u>	.									
Drilling Co.: Prosonic Sampling Method: Geoprobe  Driller: Andrew Sampling Interval: Continuous  Drilling Method: Geoprobe Water Level Start: 10  Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Sumpling Method: Geoprobe Sampling Interval: Continuous  Water Level Finish: 10  Converted to Well: Yes No  Surface Elev.:  North Coor:	12										
Drilling Co.: Prosonic Sampling Method: Geoprobe   Driller: Andrew Sampling Interval: Continuous   Drilling Method: Geoprobe Water Level Start: 10   Drilling Fluid: None Water Level Finish: 10   Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample. Converted to Well: Yes X No   Surface Elev.: North Coor:	· '	]									
Drilling Co.: Prosonic Sampling Method: Geoprobe   Driller: Andrew Sampling Interval: Continuous   Drilling Method: Geoprobe Water Level Start: 10   Drilling Fluid: None Water Level Finish: 10   Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample. Converted to Well: Yes X No   Surface Elev.: North Coor:	_										
Drilling Co.: Prosonic Sampling Method: Geoprobe   Driller: Andrew Sampling Interval: Continuous   Drilling Method: Geoprobe Water Level Start: 10   Drilling Fluid: None Water Level Finish: 10   Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample. Converted to Well: Yes X No   Surface Elev.: North Coor:	13										
Drilling Co.:       Prosonic       Sampling Method:       Geoprobe         Driller:       Andrew       Sampling Interval:       Continuous         Drilling Method:       Geoprobe       Water Level Start:       10         Drilling Fluid:       None       Water Level Finish:       10         Remarks:       Temporary well installed from 9 to 14 feet for collection of groundwater sample.       Converted to Well:       Yes       X No         North Coor:       North Coor:											
Drilling Co.:       Prosonic       Sampling Method:       Geoprobe         Driller:       Andrew       Sampling Interval:       Continuous         Drilling Method:       Geoprobe       Water Level Start:       10         Drilling Fluid:       None       Water Level Finish:       10         Remarks:       Temporary well installed from 9 to 14 feet for collection of groundwater sample.       Converted to Well:       Yes       X No         North Coor:       North Coor:											
Driller: Andrew Sampling Interval: Continuous  Drilling Method: Geoprobe Water Level Start: 10  Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample. Surface Elev.:  North Coor:											
Drilling Method: Geoprobe Water Level Start: 10  Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample. Surface Elev.:  North Coor:		Prosonic	С				Sam	oling Method: Geopre	obe		
Drilling Fluid: None Water Level Finish: 10  Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Surface Elev.:  North Coor:	Driller:	Andrew					Sam	pling Interval: Contin	uous		
Remarks: Temporary well installed from 9 to 14 feet for collection of groundwater sample.  Surface Elev.:  North Coor:	_	-	be								
collection of groundwater sample.  Surface Elev.:  North Coor:	Drilling Fluid:	None					Water	Level Finish: 10			
North Coor:	Remarks:	Tempor	ary well i	nstalled fror	m 9 to 14 fee	et for	Conv	erted to Well:	Yes	⊠ No	
		collectio	n of grou	ndwater sa	mple.		8	Surface Elev.:			
Forton								North Coor:			
East Coor:								East Coor:			

ADCAI	NC.							Bori	ng No.:_S	SG-4
ARCAL										
Soil Boring						D 1 01 1	1 00/40/0004	She		of 1
Project Name: Project Number:	-		outh Street				d: <u>03/10/2004</u> d: <u>03/10/2004</u>	Logger: <u>Jonathor</u> Editor: <u>JS</u>	Smith	
Project Location:						e complete		Conditions: <u>Clear, 20</u>	's	
Depth	Sample	Blow Counts	Recovery (in.)	Sample ID	PID	USCS Class		Description		Construction Details
(feet)	II itei vai	Courits	(111.)	·	(ppm)	Class	Fill; black to tan, fine sa	and/sandv silt. 5% fine gi	avel.	Details
1 1				NS						
3 										
5 5 6 7			53	NS		77 77 77 77 77 77 77 77 77	Fill: fine sand, tan, poorl gravel.  Fill: fine sand, dark brow gravel.  Cinders, silver/gray.  Fine sand, dark brown to sand, dark brown to sand, dark brown to sand.	vn to red, poorly sorted,		
			3	NS	174	1 77 77 7	Clay, dark brown, silty, v	wet.		
			5	140	'/4					
Drilling Co.:	Prosoni	 c			1	<i>V////////</i> Samı	oling Method: <u>Geopr</u>	obe		
Driller:	Andrew					-	pling Interval: Contin			
Drilling Method:		be				Wate	er Level Start: 10			
Drilling Fluid:	None						Level Finish: 10	1 v	1	
Remarks:				m 5 to 10 fee			erted to Well:			
				ımple. Hanc	auger us	sea S	Surface Elev.:			
	ioi iiillia	l 4 feet of	ı burling.				North Coor: East Coor:			
							<u></u>			

A ARCAI	)IS								Boring No.: S	SG-5
Soil Boring									Sheet: 1	of 1
Project Name:	Eagle Pi					Date Starte	ed: <u>03/10/2004</u>	Logger:	C. Seidel	01 1
Project Number:					Dat	te Complete	ed: <u>03/10/2004</u>	_ Editor:		
Project Location:	<u>Hillsdale</u> ,	, MI			_		Weather C	onditions:	Sun, 40's	
Depth (feet)	Sample Interval	Blow Counts	Recovery (in.)	Sample ID	PID (ppm)	USCS Class		Description		Construction Details
1 2				NS			Fill: brown, silt, little san	d, cinders, m	oist.	
3 4 5										
6 6 7							Fill: sand and clay, cinde		<i>y</i> .	
8 9 10			34	NS	0.0		Sand and clay, wet.			
11 12 13 14			39	NS	0.0		Sand, well graded, brow Sand, yellowish-brown to moist to wet. Sand, gray, fine grained Sand, fine grained, well	black, fine, well sorted,	grained, well sorted, wet.	
15	Dress					<u> </u>	oling Mothed: O	- h o		
Drilling Co.: Driller:	Prosonic Andrew						oling Method: <u>Geopro</u> pling Interval: <u>Contin</u>			
Drilling Method:							pling interval. <u>Contin</u> er Level Start: <u>9</u>			
_	None					Water	Level Finish: 9			
Remarks:				m 9 to 14 fee			erted to Well:		× No	
		_		mple. Hand	_		Surface Elev.:			
	for initial	5 teet of	boring.				North Coor:			
							East Coor:			

## **ARCADIS**

Appendix G

Laboratory Analytical Data Sheets



March 18, 2004

Fibertec Project # 76816

Project Identification: Eagle Picher-South Street/ SF003152.0002

Ms. Dawn Sharvin Arcadis 25200 Telegraph Road Southfield, MI 48034

Dear Ms. Sharvin:

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed as requested and the results compiled in the enclosed report. Please note sample will be disposed of 30 days after reporting date.

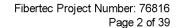
If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh Laboratory Director

DPS/kc

**Enclosures** 





## ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-1

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 1

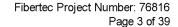
SAMPLE DATE: 3/9/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	10	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





## ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-1

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 1

SAMPLE DATE: 3/9/2004 CHAIN OF CUSTODY NUMBER: 42419B

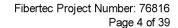
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
N-PROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
STYRENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK

Telephone: (517) 699-0345 Facsimile: (517) 699-0388 Telephone: (248) 446-5700 Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-1

STREET

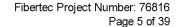
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 1

SAMPLE DATE: 3/9/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TETRACHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,1-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3,5-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
VINYL ACETATE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
VINYL CHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOTAL XYLENES	ND	ug/L	3.0	8260	28306	3/17/2004	3/17/2004	CK
					l			





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-1

STREET

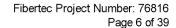
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 1

SAMPLE DATE: 3/9/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
ACENAPHTHYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
ANTHRACENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(a)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(a)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(b)FLUORANTHENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(ghi)PERYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(k)FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
CHRYSENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
FLUORENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
2-METHYLNAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
NAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
PHENANTHRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
PYRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-1

STREET

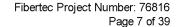
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 1

SAMPLE DATE: 3/9/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
DISSOLVED ARSENIC DISSOLVED BARIUM DISSOLVED CADMIUM DISSOLVED CHROMIUM DISSOLVED COPPER DISSOLVED LEAD DISSOLVED MERCURY DISSOLVED SELENIUM DISSOLVED SILVER DISSOLVED ZINC	ND 140 ND 9.0 ND ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 100 0.50 5.0 25 3.0 0.20 5.0 0.50 10	6020 6020 6020 6020 6020 7470 6020 6020	28298 28298 28298 28298 28298 28298 28317 28298 28298	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	JLH JLH JLH JLH JLH JTW JLH JLH JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 002

# **CLIENT SAMPLE INFORMATION**

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-2

**STREET** 

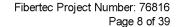
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 2

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	10	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1.2-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK



SSG-2



### ANALYTICAL LABORATORY RESULTS

CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 002

# **CLIENT SAMPLE INFORMATION**

PROJECT IDENTIFICATION: **EAGLE PICHER-SOUTH** CLIENT SAMPLE DESCRIPTION:

STREET

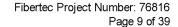
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 2

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
N-PROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
STYRENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-2

STREET

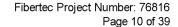
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 2

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TETRACHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,1-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3,5-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
VINYL ACETATE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
VINYL CHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOTAL XYLENES	ND	ug/L	3.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-2

STREET

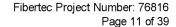
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 2

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
ACENAPHTHYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
ANTHRACENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(a)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(a)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(b)FLUORANTHENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(ghi)PERYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
BENZO(k)FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
CHRYSENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
FLUORENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/12/2004	LAN
2-METHYLNAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
NAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
PHENANTHRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN
PYRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/12/2004	LAN





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-2

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 2

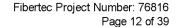
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
DISSOLVED ARSENIC DISSOLVED BARIUM DISSOLVED CADMIUM DISSOLVED CHROMIUM DISSOLVED COPPER DISSOLVED LEAD DISSOLVED MERCURY DISSOLVED SELENIUM DISSOLVED SILVER DISSOLVED ZINC	ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 100 0.50 5.0 25 3.0 0.20 5.0 0.50 10	6020 6020 6020 6020 6020 6020 7470 6020 6020	28298 28298 28298 28298 28298 28298 28317 28298 28298	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	JIH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-3

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 3

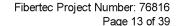
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/Kg	38,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
ACROLEIN	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
ACRYLONITRILE	ND	ug/Kg	130,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BENZENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOCHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMODICHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOFORM	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-BUTANONE	ND	ug/Kg	38,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
N-BUTYLBENZENE	5,200	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
SEC-BUTYLBENZENE	4,100	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
TERT-BUTYLBENZENE	380	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
CARBON DISULFIDE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
CARBON TETRACHLORIDE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROBENZENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-CHLOROETHYL VINYL ETHER	ND	ug/Kg	250,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROFORM	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-CHLOROTOLUENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
DIBROMOCHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/Kg	250	5035/8260	28253	3/10/2004	3/17/2004	BP
DIBROMOMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-3

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 3

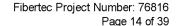
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
							- / /	
1,3-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
1,4-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
DICHLORODIFLUOROMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROETHANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROETHANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CIS-1,2-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
TRANS-1,2-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,3-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
2,2-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CIS-1,3-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
TRANS-1,3-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
ETHYLBENZENE	1,200	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
ETHYLENE DIBROMIDE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
HEXACHLOROBUTADIENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
2-HEXANONE	ND	ug/Kg	2,500	5035/8260	28253	3/10/2004	3/17/2004	BP
IODOMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
ISOPROPYLBENZENE	2,300	ug/Kg	250	5035/8260	28253	3/10/2004	3/17/2004	BP
4-METHYL-2-PENTANONE	ND	ug/Kg	130,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
METHYLENE CHLORIDE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
MTBE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
N-PROPYLBENZENE	7,300	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
STYRENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-3

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 3

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

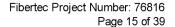
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE 1,1,2,2-TETRACHLOROETHANE TETRACHLOROETHENE TOLUENE 1,2,3-TRICHLOROBENZENE 1,2,4-TRICHLOROBENZENE 1,1,1-TRICHLOROETHANE TRICHLOROETHANE TRICHLOROETHANE TRICHLOROFLUOROMETHANE 1,2,3-TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE VINYL ACETATE VINYL CHLORIDE TOTAL XYLENES	ND 140 ND	ug/Kg	100 100 2,500* 2,500* 250 2,500* 2,500* 2,500* 100 5,000* 130,000* 2,000* 7,500*	5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260	28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253	3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004	3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004	BP BP BP BP BP BP BP BP BP BP BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-3

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 3

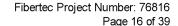
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/Kg	330	8270	28289	3/12/2004	3/12/2004	LAN
ACENAPHTHYLENE	ND	ug/Kg	330	8270	28289	3/12/2004	3/12/2004	LAN
ANTHRACENE	ND	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
BENZO(a)ANTHRACENE	ND	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
BENZO(a)PYRENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
BENZO(b)FLUORANTHENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
BENZO(ghi)PERYLENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
BENZO(k)FLUORANTHENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
CHRYSENE	ND	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
FLUORANTHENE	ND	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
FLUORENE	1,500	ug/Kg	330	8270	28289	3/12/2004	3/12/2004	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/Kg	6,600*	8270	28289	3/12/2004	3/16/2004	LAN
2-METHYLNAPHTHALENE	3,300	ug/Kg	330	8270	28289	3/12/2004	3/12/2004	LAN
NAPHTHALENE	6,700	ug/Kg	330	8270	28289	3/12/2004	3/12/2004	LAN
PHENANTHRENE	2,200	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
PYRENE	ND	ug/Kg	1,700*	8270	28289	3/12/2004	3/15/2004	LAN
			,					





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-3

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 3

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

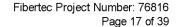
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 23%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE RI	ESULT UNIT	TS RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ARSENIC BARIUM 3 CADMIUM CHROMIUM COPPER LEAD MERCURY SELENIUM SILVER	1,300 ug/K 9,000 ug/K 90 ug/K 5,500 ug/K 2,800 ug/K ND ug/K ND ug/K ND ug/K ND ug/K ND ug/K ND ug/K	\( \text{Sg}  \text{100} \\ \text{Sg}  \text{1,000} \\ \text{Sg}  \text{50} \\ \text{Sg}  \text{500} \\ \text{Sg}  \text{1,000} \\ \text{Sg}  \text{1,000} \\ \text{Sg}  \text{100} \\ \text{Sg}  \text{200} \\ \text{Sg}  \text{500} \end{array}	6020 6020 6020 6020 6020 7471 6020 6020 6020	28295 28295 28295 28295 28295 28295 28295 28295 28295 28295	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	3/16/2004 3/16/2004 3/16/2004 3/16/2004 3/16/2004 3/15/2004 3/16/2004 3/16/2004 3/16/2004	JLH JLH JLH JLH JLH JLH JLH JTW JLH JLH JLH JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-4

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 4

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

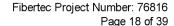
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 15%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/Kg	38,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
ACROLEIN	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
ACRYLONITRILE	ND	ug/Kg	130,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BENZENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOCHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMODICHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOFORM	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
BROMOMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-BUTANONE	ND	ug/Kg	38,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
N-BUTYLBENZENE	5,300	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
SEC-BUTYLBENZENE	5,500	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
TERT-BUTYLBENZENE	730	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
CARBON DISULFIDE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
CARBON TETRACHLORIDE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROBENZENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-CHLOROETHYL VINYL ETHER	ND	ug/Kg	250,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROFORM	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CHLOROMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
2-CHLOROTOLUENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
DIBROMOCHLOROMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/Kg	250	5035/8260	28253	3/10/2004	3/17/2004	BP
DIBROMOMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-4

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 4

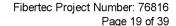
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 15%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
1,4-DICHLOROBENZENE	ND	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
DICHLORODIFLUOROMETHANE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROETHANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROETHANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CIS-1,2-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
TRANS-1,2-DICHLOROETHENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,2-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,3-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
2,2-DICHLOROPROPANE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
1,1-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
CIS-1,3-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
TRANS-1,3-DICHLOROPROPENE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
ETHYLBENZENE	540	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
ETHYLENE DIBROMIDE	ND	ug/Kg	2,500*	5035/8260	28253	3/10/2004	3/17/2004	BP
HEXACHLOROBUTADIENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP
2-HEXANONE	ND	ug/Kg	2,500	5035/8260	28253	3/10/2004	3/17/2004	BP
IODOMETHANE	ND	ug/Kg	5,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
ISOPROPYLBENZENE	2,200	ug/Kg	250	5035/8260	28253	3/10/2004	3/17/2004	BP
4-METHYL-2-PENTANONE	ND	ug/Kg	130,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
METHYLENE CHLORIDE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
MTBE	ND	ug/Kg	13,000*	5035/8260	28253	3/10/2004	3/17/2004	BP
N-PROPYLBENZENE	5,800	ug/Kg	100	5035/8260	28253	3/10/2004	3/17/2004	BP
STYRENE	ND	ug/Kg	50	5035/8260	28253	3/10/2004	3/17/2004	BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-4

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 4

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

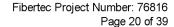
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 15%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

1,1,1,2-TETRACHLOROETHANE         ND         ug/Kg         100         5035/8260         28253         3/10/2004         3/17/2004         BP           1,1,2,2-TETRACHLOROETHANE         130         ug/Kg         100         5035/8260         28253         3/10/2004         3/17/2004         BP           TETRACHLOROETHENE         ND         ug/Kg         2,500*         5035/8260         28253         3/10/2004         3/17/2004         BP           TOLUENE         ND         ug/Kg         2,500*         5035/8260         28253         3/10/2004         3/17/2004         BP           1,2,3-TRICHLOROBENZENE         ND         ug/Kg         250         5035/8260         28253         3/10/2004         3/17/2004         BP           1,1,1-TRICHLOROETHANE         ND         ug/Kg         2,500*         5035/8260         28253         3/10/2004         3/17/2004         BP           1,1,2-TRICHLOROETHANE         ND         ug/Kg         2,500*         5035/8260         28253         3/10/2004         3/17/2004         BP           1,1,2-TRICHLOROETHANE         ND         ug/Kg         2,500*         5035/8260         28253         3/10/2004         3/17/2004         BP           TRICHLOROFLUOROMETHANE         ND	ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
VINYL CHLORIDE ND ug/Kg ug/Kg 7,500* 5035/8260 28253 3/10/2004 3/17/2004 BP TOTAL XYLENES ND	1,1,1,2-TETRACHLOROETHANE 1,1,2,2-TETRACHLOROETHANE TETRACHLOROETHENE TOLUENE 1,2,3-TRICHLOROBENZENE 1,2,4-TRICHLOROBENZENE 1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE TRICHLOROETHANE TRICHLOROETHENE TRICHLOROFLUOROMETHANE 1,2,3-TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE VINYL ACETATE VINYL CHLORIDE	ND 130 ND ND ND ND ND ND ND ND ND ND ND ND ND	ug/Kg	100 100 2,500* 2,500* 250 2,500* 2,500* 2,500* 5,000* 100 5,000* 130,000* 2,000*	5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260 5035/8260	28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253 28253	3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004 3/10/2004	3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004	BP BP BP BP BP BP BP BP BP BP





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-4

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 4

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

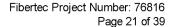
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 15%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ACENAPHTHYLENE         ND         ug/Kg         330         8270         28289         3/12/2004         3/12/2004         LAN           ANTHRACENE         ND         ug/Kg         1,700*         8270         28289         3/12/2004         3/15/2004         LAN           BENZO(a)ANTHRACENE         ND         ug/Kg         1,700*         8270         28289         3/12/2004         3/15/2004         LAN           BENZO(a)PYRENE         ND         ug/Kg         6,600*         8270         28289         3/12/2004         3/16/2004         LAN           BENZO(b)FLUORANTHENE         ND         ug/Kg         6,600*         8270         28289         3/12/2004         3/16/2004         LAN           BENZO(ghi)PERYLENE         ND         ug/Kg         6,600*         8270         28289         3/12/2004         3/16/2004         LAN	ANALYTE	RESULT U	UNITS RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
CHRYSENE         ND         ug/kg         1,700*         8270         28289         3/12/2004         3/15/2004         LAN           DIBENZO(a,h)ANTHRACENE         ND         ug/kg         6,600*         8270         28289         3/12/2004         3/16/2004         LAN           FLUORANTHENE         ND         ug/kg         1,700*         8270         28289         3/12/2004         3/15/2004         LAN           FLUORENE         460         ug/kg         330         8270         28289         3/12/2004         3/12/2004         LAN           INDENO(1,2,3-cd)PYRENE         ND         ug/kg         6,600*         8270         28289         3/12/2004         3/16/2004         LAN           2-METHYLNAPHTHALENE         590         ug/kg         330         8270         28289         3/12/2004         3/12/2004         LAN           NAPHTHALENE         1,000         ug/kg         330         8270         28289         3/12/2004         3/12/2004         LAN           PHENANTHRENE         ND         ug/kg         1,700*         8270         28289         3/12/2004         3/15/2004         LAN	ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(a)ANTHRACENE BENZO(b)FLUORANTHENE BENZO(b)FLUORANTHENE BENZO(k)FLUORANTHENE CHRYSENE DIBENZO(a,h)ANTHRACENE FLUORANTHENE FLUORANTHENE FLUORENE INDENO(1,2,3-cd)PYRENE 2-METHYLNAPHTHALENE NAPHTHALENE PHENANTHRENE	ND up	ug/Kg 330 ug/Kg 330 ug/Kg 1,700* ug/Kg 1,700* ug/Kg 6,600* ug/Kg 6,600* ug/Kg 6,600* ug/Kg 1,700* ug/Kg 1,700* ug/Kg 1,700* ug/Kg 330 ug/Kg 330 ug/Kg 330 ug/Kg 330 ug/Kg 1,700*	8270 8270 8270 8270 8270 8270 8270 8270	28289 28289 28289 28289 28289 28289 28289 28289 28289 28289 28289 28289 28289 28289 28289	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	3/12/2004 3/12/2004 3/15/2004 3/15/2004 3/16/2004 3/16/2004 3/16/2004 3/15/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	LAN





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: SOIL

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH STREET CLIENT SAMPLE DESCRIPTION: SSG-4

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 4

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

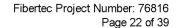
COMMENTS: ALL RESULTS REPORTED ON DRY WEIGHT BASIS. PERCENT MOISTURE = 15%

\* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ARSENIC 6,000 ug/Kg 100 6020 28295 3/12/2004 3/16/2004 JLH BARIUM 22,000 ug/Kg 1,000 6020 28295 3/12/2004 3/16/2004 JLH CADMIUM 280 ug/Kg 50 6020 28295 3/12/2004 3/16/2004 JLH CHROMIUM 130,000 ug/Kg 500 6020 28295 3/12/2004 3/16/2004 JLH	ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
COPPER	ARSENIC BARIUM CADMIUM CHROMIUM COPPER LEAD MERCURY SELENIUM SILVER	6,000 22,000 280 130,000 36,000 7,000 ND ND ND	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	100 1,000 50 500 1,000 1,000 100 200 500	6020 6020 6020 6020 6020 6020 7471 6020 6020	28295 28295 28295 28295 28295 28295 28299 28295 28295	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	3/16/2004 3/16/2004 3/16/2004 3/16/2004 3/16/2004 3/16/2004 3/15/2004 3/16/2004	JLH JLH JLH JLH JLH JLH JLH JTW JLH JLH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-4

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 5

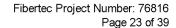
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: \* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
L GERMAN TO			1204	0.50		2 (4 7 17 22 24	2 (4 = (5 0 0 4	
ACETONE	ND	ug/L	130*	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	130*	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	16	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	14	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	50*	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-4

STREET

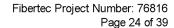
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 5

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: \* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	6.5	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	250*	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	16	ug/L	5.0*	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	250*	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
2-METHYLNAPHTHALENE	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK
NAPHTHALENE	50	ug/L	25*	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-4

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 5

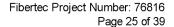
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS: \* RAISED RL DUE TO SAMPLE MATRIX

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

N-PROPYLBENZENE ND ug/L 5.0* 8260 28306 3/17/2004 3/17/2004 CK STYRENE ND ug/L 1,1,1,2-TETRACHLOROETHANE ND ug/L 1,1,2,2-TETRACHLOROETHANE ND ug/L 1,1,2,2-TETRACHLOROETHANE ND ug/L 1,1,2,2-TETRACHLOROETHANE ND ug/L 1,0,0* ND	ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
	N-PROPYLBENZENE STYRENE 1,1,1,2-TETRACHLOROETHANE 1,1,2,2-TETRACHLOROETHANE TETRACHLOROETHENE TOLUENE 1,2,3-TRICHLOROBENZENE 1,2,4-TRICHLOROBENZENE 1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE TRICHLOROETHENE TRICHLOROFLUOROMETHANE 1,2,3-TRICHLOROPROPANE 1,2,4-TRIMETHYLBENZENE 1,3,5-TRIMETHYLBENZENE VINYL ACETATE VINYL CHLORIDE	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	5.0* 5.0* 5.0* 5.0* 5.0* 5.0* 5.0* 25* 25* 5.0* 5.0* 5.0* 5.0* 5.0*	8260 8260 8260 8260 8260 8260 8260 8260	28306 28306 28306 28306 28306 28306 28306 28306 28306 28306 28306 28306 28306 28306 28306	3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004	3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004 3/17/2004	CK C





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-3

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 6

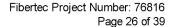
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH INIT.
ACETONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	8.8	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	11	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	1.2	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	1.5	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	10	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-3

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 6

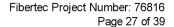
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	2.0	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	33	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
N-PROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
STYRENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-3

STREET

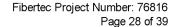
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 6

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TETRACHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,1-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRIMETHYLBENZENE	51	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3,5-TRIMETHYLBENZENE	8.8	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
VINYL ACETATE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
VINYL CHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOTAL XYLENES	22	ug/L	3.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-3

STREET

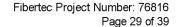
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 6

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-3

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 6

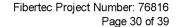
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
DISSOLVED ARSENIC	19	ug/L	10	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED BARIUM	130	ug/L	100	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED CADMIUM	ND	ug/L	0.50	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED CHROMIUM	13	ug/L	5.0	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED COPPER	ND	ug/L	25	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED LEAD	ND	ug/L	3.0	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED MERCURY	ND	ug/L	0.20	7470	28317	3/15/2004	3/15/2004	JTW
DISSOLVED SELENIUM	ND	ug/L	5.0	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED SILVER	ND	ug/L	0.50	6020	28298	3/12/2004	3/12/2004	ЛLН
DISSOLVED ZINC	11	ug/L	10	6020	28298	3/12/2004	3/12/2004	ЛLН





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-5

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 7

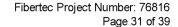
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	10	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 007

# **CLIENT SAMPLE INFORMATION**

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-5

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 7

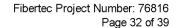
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
N-PROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
STYRENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-5

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 7

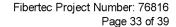
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TETRACHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,1-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3,5-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
VINYL ACETATE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
VINYL CHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOTAL XYLENES	ND	ug/L	3.0	8260	28306	3/17/2004	3/17/2004	CK
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CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-5

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 7

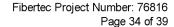
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
ACENAPHTHYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
ANTHRACENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(a)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(a)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(b)FLUORANTHENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(ghi)PERYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(k)FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
CHRYSENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
FLUORENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
2-METHYLNAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
NAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
PHENANTHRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
PYRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
				1				





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: SSG-5

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 7

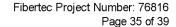
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
DISSOLVED ARSENIC DISSOLVED BARIUM DISSOLVED CADMIUM DISSOLVED CHROMIUM DISSOLVED COPPER DISSOLVED LEAD DISSOLVED MERCURY DISSOLVED SELENIUM DISSOLVED SILVER DISSOLVED ZINC	ND ND 5.9 ND ND ND ND ND 17	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 100 0.50 5.0 25 3.0 0.20 5.0 0.50 10	6020 6020 6020 6020 6020 7470 6020 6020 6020	28298 28298 28298 28298 28298 28298 28317 28298 28298 28298	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	ILH ILH ILH ILH ILH ILH ILH ILH ILH





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: DUPLICATE

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 8

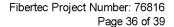
SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACETONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
ACROLEIN	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
ACRYLONITRILE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMODICHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
BROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-BUTANONE	ND	ug/L	25	8260	28306	3/17/2004	3/17/2004	CK
N-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
SEC-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TERT-BUTYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON DISULFIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
CARBON TETRACHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROETHYL VINYL ETHER	ND	ug/L	10	8260	28306	3/17/2004	3/17/2004	CK
CHLOROFORM	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2-CHLOROTOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOCHLOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DIBROMO-3-CHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DIBROMOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: DUPLICATE

**STREET** 

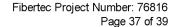
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 8

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,3-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,4-DICHLOROBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
DICHLORODIFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,2-DICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
2,2-DICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
CIS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRANS-1,3-DICHLOROPROPENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ETHYLENE DIBROMIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
HEXACHLOROBUTADIENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
2-HEXANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
IODOMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
ISOPROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
4-METHYL-2-PENTANONE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
METHYLENE CHLORIDE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
MTBE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
N-PROPYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
STYRENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: DUPLICATE

STREET

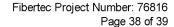
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 8

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
1,1,1,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2,2-TETRACHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TETRACHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOLUENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRICHLOROBENZENE	ND	ug/L	5.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,1-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,1,2-TRICHLOROETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROETHENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TRICHLOROFLUOROMETHANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,3-TRICHLOROPROPANE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,2,4-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
1,3,5-TRIMETHYLBENZENE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
VINYL ACETATE	ND	ug/L	50	8260	28306	3/17/2004	3/17/2004	CK
VINYL CHLORIDE	ND	ug/L	1.0	8260	28306	3/17/2004	3/17/2004	CK
TOTAL XYLENES	ND	ug/L	3.0	8260	28306	3/17/2004	3/17/2004	CK





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: DUPLICATE

STREET

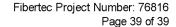
PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 8

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
ACENAPHTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
ACENAPHTHYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
ANTHRACENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(a)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(a)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(b)FLUORANTHENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(ghi)PERYLENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
BENZO(k)FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
CHRYSENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
DIBENZO(a,h)ANTHRACENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
FLUORANTHENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
FLUORENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
INDENO(1,2,3-cd)PYRENE	ND	ug/L	2.0	8270	28288	3/12/2004	3/13/2004	LAN
2-METHYLNAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
NAPHTHALENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
PHENANTHRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN
PYRENE	ND	ug/L	5.0	8270	28288	3/12/2004	3/13/2004	LAN





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: WATER

FIBERTEC PROJECT NO: 76816 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER-SOUTH CLIENT SAMPLE DESCRIPTION: DUPLICATE

STREET

PROJECT NUMBER: SF003152.0002 CLIENT SAMPLE NUMBER: 8

SAMPLE DATE: 3/10/2004 CHAIN OF CUSTODY NUMBER: 42419B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
DISSOLVED ARSENIC DISSOLVED BARIUM DISSOLVED CADMIUM DISSOLVED CHROMIUM DISSOLVED COPPER DISSOLVED LEAD DISSOLVED MERCURY DISSOLVED SELENIUM DISSOLVED SILVER DISSOLVED ZINC	ND ND ND 6.9 ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 100 0.50 5.0 25 3.0 0.20 5.0 0.50 10	6020 6020 6020 6020 6020 6020 7470 6020 6020	28298 28298 28298 28298 28298 28298 28317 28298 28298	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/15/2004 3/12/2004 3/12/2004 3/12/2004	3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004 3/12/2004	JLH JLH JLH JLH JLH JTW JLH JLH JLH JLH

Appendix H

**ARCADIS Resumes** 

#### Dawn L. Sharvin

Staff Scientist

Ms. Sharvin has more than seven years of experience in the environmental consulting industry working with a variety of industrial, commercial, and regulatory clients. She is currently focused on managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; and negotiating with regulatory agencies. Ms. Sharvin has extensive experience managing and working to solve complex environmental site assessment, remediation, and due diligence problems, and has a proven record of satisfying clients on complicated projects with challenging budget and scheduling constraints.

# **Database Management**

Serves as Data Manager for several large investigation and remediation projects. Responsibilities include database creation, maintenance, and management of all analytical and field data. Ms. Sharvin creates, writes, and modifies macros, queries, and databases that automate and simplify the comparison of analytical data to state and federal regulatory standards.

# Site Assessment and Remedial Investigations

Ms. Sharvin has managed numerous projects involved with the assessment and remediation of soil and groundwater impacted by various constituents of concern. She has successfully conceived, designed, and implemented investigations and remedial programs at former manufactured gas plant (MGP) sites, landfills, service stations, petroleum terminals, refineries, industrial facilities, and government facilities. Environmental impacts are assessed using a variety of surface and subsurface techniques, including installation of soil borings and

groundwater monitoring wells, soil and groundwater sampling, plume assessment and delineation, determination of aquifer characteristics, and preparation of assessment and remedial investigation reports. Ms. Sharvin has extensive experience in field procedures and data collection programs, including a working knowledge of all types of drilling techniques, field test kits, monitoring well design, aquifer testing, site safety, and groundwater monitoring procedures.

Ms. Sharvin has also conducted numerous site assessment activities, including Phase I and Phase II environmental site assessments (ESAs) (in accordance with *American Society for Testing and Materials* [ASTM] and other state and federal guidance), as well as baseline environmental assessments (BEAs) for residential, commercial, and industrial properties.

#### Railroads

Ms. Sharvin has worked with a variety of railroad clients, including CSX Transportation, Conrail, Long Island Railroad (LIRR), and Metro North

#### Education

M.S./ Environmental Science, Long Island University. 2001.

B.S./ Biology, Lehigh University, 1997.

#### **Professional Certifications**

Hazardous Waste Site Training, OSHA 40-hour Certification

8-hour Refresher Course for Waste Site Personnel

Federal Railroad Association Training

Staff Scientist

Railroad, at a variety of former and active railroad sites across the Midwest and northeast United States. Her railroad experience includes environmental due diligence; site assessments; remedial investigations; feasibility studies; track expansion; remedial designs and remedial actions for roundhouses, tank farms, hump yards, maintenance and repair facilities, sidings, and main lines. Many of these projects have allowed for the redevelopment of abandoned or idle railroad property.

#### **Petroleum Sites**

Worked on a variety of petroleum sites for clients that range from national and multinational firms (i.e., Chevron, and Gulf) to regional (Marathon, Speedway SuperAmerica) and local distributors. Served as Project Manager and field scientist for dozens of leaking underground storage tanks (LUSTs) and aboveground storage tank (AST) projects. Supervised the removal and/or closure of more than 50 USTs and ASTs for bulk petroleum storage and transfer plants, retail distribution centers, fleet maintenance centers, and manufacturing facilities. Designed and implemented UST/AST closures and compliance upgrades, soil and groundwater remedial systems, and LUST emergency response actions for more than 50 sites across the United States. Responsible for preparing budgets, work plans, technical reports, and LUST fund reimbursement claims.

# **Construction Oversight**

Provided construction oversight on several environmentally sensitive projects. Conducted air monitoring at numerous sites during the excavation of potentially impacted soils. Provided construction oversight of filling, contouring, and construction activities associated with the conversion of a former municipal landfill into a professional golf course.

Responsible for documenting remedial activities using photographs, slides, field sketches, and logbook notes. Served as field contact for communicating information between subcontractors and the client and was also responsible for making on-the-spot changes in the field.

# **Additional Training**

- United States Environmental Protection Agency (EPA), Region 5, SPCC New Rule Seminar, November 2002
- National Groundwater Association, Comprehensive Groundwater Management Using Microsoft Access, October 1999
- GIS/Solutions, Inc., GIS/Key Basic Training, February 1999
- ESRI, Learning Geographic Information System (GIS) (for ArcView and ArcInfo), October 1998

Mr. Quinnan has more than 14 years professional experience in environmental consulting. Mr. Quinnan has extensive experience in hydrogeology, in-situ remediation, and numerical modeling. He has supervised the design and implementation of over 100 in-situ treatment systems ranging from groundwater pump and treat to enhanced bioremediation for chemicals, including petroleum, solvents, pesticides, and metals. He serves as a company-wide resource in hydrogeology and in-situ remediation methods. He also serves as project manager, lead technical resource in numerical modeling, and as regulatory negotiator.

During the last several years, Mr. Quinnan has directed remedial investigations and remedy selection at Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and state-lead projects through out the country. Prior to joining ARCADIS, he was actively involved in bioremediation technology development and commercialization for recalcitrant compounds including methyl tert-butyl ether (MTBE), ammonium perchlorate, and chlorinated aliphatic hydrocarbons. He has also directed technology demonstrations in CERCLA and through the Department of Defense's Environmental Security Technology Certification Program (ESTCP).

Mr. Quinnan is currently focused on developing site evaluation strategies that complement the company's innovative in-situ remediation techniques and risk capabilities and lead to exit strategies for our clients. His responsibilities include developing strategies for hydrogeologic site evaluations and in-situ remediation projects; managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; supervising numerical modeling projects; and negotiating with regulatory agencies. Mr. Quinnan is also Site Evaluation Department Manager for the Southfield Office.

# Recent Project Experience

Project Manager and lead hydrogeologist for North Bronson Industrial Area Superfund Site – Operable Unit 1. The project involves the investigation and characterization of several lagoons where metals, petroleum hydrocarbons, chlorinated hydrocarbons, and cyanides wastes were disposed. Pre-Design Studies are currently in progress to assess the

feasibility and technical design requirements associated with the ROD remedy, which involves consolidation of lagoons and hydraulic containment of the groundwater plume. Groundwater treatment is anticipated to be accomplished with an engineered treatment wetland designed to

stabilize the metals and remediate the chlorinated solvents through biologically mediated reductive

dechlorination.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

Education

Postgraduate Studies, Hydrogeology, University of Illinois, Champaign, Illinois

M.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

B.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

Professional
Registrations/Certifications

Certified Hydrogeologist -Wisconsin

Professional Engineer -Wisconsin

Professional Geologist -Wisconsin

OSHA 40-hour Hazardous Materials Training Course following USEPA requirements.

Professional Affiliations

American Society of Civil Engineers

National Ground Water Association

Association of Engineering Geologists

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

Lead hydrogeologist for confidential derailment site in Michigan. Project underwent approximately 10 years of pump-and-treat to address 1,1dichloroethene impacts prior to ARCADIS involvement. Completed remedial investigation using Cone Penetrometer Test (CPT) technology for stratigraphic characterization and vertical aquifer profiling. Integrated remedial investigation (RI) data using 3-dimensionsal geostatistics, groundwater flow modeling, and ecological risk assessment to evaluate application of in-situ reductive declorination and monitored natural attenuation (MNA) remedies. Pending the results of a mixing zone determination by the Michigan Department of Environmental Quality (MDEQ), it is anticipated that the final remedy will consist of engineered controls and MNA. rather than continued groundwater pump and treatment, which was estimated at over \$2 million.

Lead Hydrogeologist and project manager for confidential litigation project in Ontario, Canada. Project involves site characterization in complex fractured till setting with DNAPL and development of exit strategy to minimize remediation costs and potential liabilities.

Hydrogeological consultant in on-going litigation project in Massachusetts. Assisting confidential client in developing cost allocation and litigation strategy to limit liabilities associated with MTBE impacts to municipal well system.

Was lead hydrogeologist in technology demonstration at the City of Dover Municipal Landfill Superfund Site, New Hampshire. Project involved field-scale demonstration of sequential anaerobic-aerobic biostimulation to remediate chlorinated aromatic hydrocarbons, aromatic hydrocarbons, and dissolved arsenic.

Was lead hydrogeologist/Project Director in Department of Defense (DOD)/ESTCP technology demonstration involving in-situ biostimulation to remediate MTBE and tertiary butyl alcohol (TBA) at the Port Hueneme, California Naval Engineering Technology Test Site.

Directed Final Design Investigation at Woodlands Township Superfund Sites in New Jersey to develop prototype air sparging and soil-vapor extraction design involving over 300-air sparge wells to treat chlorinated volatiles and aromatic hydrocarbons in area covering approximately 8 acres. Project involved the application of CPT to characterize the stratigraphy in a back-bay coastal environment and development of site conceptual model, which lead to an approved Remedial Design.

Was lead hydrogeologist/numerical modeler at Picillo Farms Superfund remediation design project in Rhode Island. Remedial strategy consists of dewatering and soil vapor extraction to address source area volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and groundwater pumping and treatment to manage migration of dissolved plume.

Was principal designer for an in-situ bioremediation program for free-phase

Joseph A. Quinnan, P.E., P.G.

Principal Engineer/Hydrogeologist -Ste Evaluation Department Manager

petroleum condensate removal at a natural gas pipeline compression facility in Eastern Colorado. The project involved the application of vapor extraction to aggressively remove the condensate followed by bioventing to address residual soil and groundwater impacts.

Was lead hydrogeologist in successful technology demonstration involving the treatment of chlorinated solvents (TCE, dichloroethene [DCE], and vinyl chloride) using injected nano-scale iron. The project was performed for a Fortune 50 Client in New Jersey.

Was principal hydrogeologist at automotive manufacturing facility RI/Feasibility Study (FS) project in Zanesville, Ohio. Developed and implemented site characterization strategy to define nature and extent of chlorinated solvents (trichloroethene [TCE] and degradation products) in complex bedrock environment.

Was principal hydrogeologist for monitored natural attenuation remedy at closed RCRA impoundment in Huntsville, Alabama. Project involved demonstration of natural attenuation of tetrachloroethene (PCE) and TCE in karst dolomite aquifer, which enabled decommissioning of groundwater pump and treat system.

Was principal hydrogeologist at former paint manufacture facility in New Jersey. Directed the operation and optimization of a multiphase extraction system (MPE) system to treat free-phase toluene in shallow till aquifer and aerobic bioremediation of dissolved aromatic hydrocarbons in underlying fractured bedrock aquifer. Enhanced bioremediation was accomplished using peroxide as a source of oxygen and a network of injection and withdrawal wells.

Conducted numerical groundwater flow simulation of fractured bedrock aquifer - conducted to characterize potential for radionuclide migration at a Department of Energy (DOE) site.

Designed and implemented a groundwater pumping and soil-vapor extraction pilot test at a Wisconsin RCRA facility.

Conducted design and permitting of insitu soil and groundwater treatment system using nutrient addition and enhanced biodegradation at a former metal scrap yard in Milwaukee, Wisconsin.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

#### Publications/Presentations

- Steffan, R. J., C. Condee, J. Quinnan, M. Walsh, S. H. Abrams, and J. Flanders. 2000. In situ Application of Propane Sparging for MTBE Bioremediation. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, CA. In Press.
- Turpie, A.E., C. Lizotte, M. Deflaun, J. Quinnan and M. Marley. 2000. *Performance of Field-Scale Sequential Aerobic/Anaerobic In Situ Bioremediation Demonstration*. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, Ca. In Press.
- Quinnan, J.A. Quantifying Uncertainty Associated with the Magnitude and Distribution of Drawdown in an Heterogeneous Leaky Aquifer System, Master's Thesis.
- Massmann, J.W., and J.A. Quinnan, 1989. *Three Dimensional Simulations of Groundwater Pumping Tests at the West Bear Creek Valley Site*, Oak Ridge National Laboratories in-house publication.
- Quinnan, J.A., 1988. *Preliminary Methods of Characterization and Classification of Gulf of Mexico Reservoirs*, Tenneco Eastern Gulf Division in-house publication.

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

Mr. Ferree has more than 18 years professional experience in environmental consulting. His expertise includes hydrogeologic investigations; remedial investigations; underground storage tank (UST) removal projects; soil and groundwater sampling plan preparation; soil and groundwater sampling in accordance with Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidance; surface and down-hole geophysical methods; remediation system design; remedial system installation; slug test and aquifer test performance and analysis; and environmental site assessments.

Mr. Ferree's responsibilities include developing proposals and cost estimates for hydrogeologic site investigations; managing and conducting hydrogeologic investigations at sites of known and unknown environmental contamination; evaluating remedial options; supervising site remediation projects; supervising entry-level geologists; and negotiating remedial strategies with regulatory agencies.

## Recent Project Experience

Manufacturing Facility

Mr. Ferree was the project manager for the remediation of soil and groundwater at a manufacturing facility in southeastern Michigan. He evaluated the extent of groundwater and soil contamination in a water-table aquifer and supervised the installation of a groundwater extraction and soil-vapor extraction remedial system.

#### Chemical Manufacturing

Mr. Ferree was the senior geologist/field manager for a state-sponsored remedial investigation/feasibility study (RI/FS) to analyze the extent of radiological contamination of a 35-acre site downgradient of an Ohio Department of Energy location. He supervised field sampling activities that included monitoring more than 350 wells and collecting more than 1,000 soil samples.

Automotive Parts Manufacturing

Mr. Ferree was the project manager for a state-led RI/FS to determine the extent of contamination in a fractured limestone aquifer. The project included installing 19 monitoring wells; quarterly sampling; conducting a 72-hour pumping test; and preparing a work plan, quality assurance project plan, sampling plan, and health and safety plan.

# Chemical Manufacturing

Mr. Ferree was the field manager for two federal RI/FS projects in Ohio, where he conducted all facets of groundwater, soil, sludge, surface-water, and sediment sampling with rigorous quality assurance/quality control under the scrutiny of United States Environmental Protection Agency (USEPA) Region V oversight contractors. He prepared RI reports, attended technical meetings between potentially responsible parties (PRPs)

Education

M.S., Geology, 1994 University of Cincinnati, Cincinnati, Ohio

B.S., Geology, 1984 University of Cincinnati, Cincinnati, Ohio

Professional
Registrations/Certifications

Certified Professional Geologist, American Institute of Professional Geologists, Certification No. 8370

Certified Professional Geologist, State of Indiana, Certification No. 1284

Professional Geologist, State of Kentucky, Certification No. 1575

Hazardous Waste Site Supervisor Training, OSHA 8hour certification

8-hour Refresher Course for Waste Site Personnel

Health and Safety Training for Hazardous Waste Sites, OSHA 40-hour certification

Professional Affiliations

National Ground Water Association

American Institute of Professional Geologists

Environmental Business Practice Manager

and Region V, and prepared the work plan.

#### Chemical Manufacturing Facility

Mr. Ferree supervised a phased subsurface investigation at a former chemical manufacturing site prior to redevelopment. He prepared work plans and RCRA Corrective Measures Implementation (CMI) Plans as part of the redevelopment plan for the site. The redevelopment plan included negotiations with State RCRA regulators to resolve RCRA Corrective Action issues prior to redevelopment. He evaluated the extent of soil and groundwater contamination for metals and volatile organic compounds (VOCs). He prepared the CMI report, CMI Work Plan, and construction specifications for the remediation of the site. Mr. Ferree supervised the installation of a barrier layer system composed of a geofabric and 9 inches of topsoil and groundwater treatment of VOCs using hydrogen peroxide. The CMI was conducted to allow the reuse of the remediated property as a school.

#### Chemical Manufacturing Facility

Mr. Ferree conducted a subsurface investigation at a manufacturing facility in Michigan. He installed monitoring wells in two aquifers to evaluate the extent of groundwater contamination, prepared a site investigation report, and designed and supervised the installation of the remedial system.

#### **Phytoremediation**

Mr. Ferree has supervised the installation of a phytocap on an abandoned casting sand landfill in southeastern Michigan. The phytocap was designed to reduce the potential for leachate production in the landfill by reducing rainfall infiltration through the landfill cap. Mr. Ferree supervised the development of the installation plan and the planting of more than 7,000 hybrid poplar trees on a 7-acre site. He has supervised the successful operation and maintenance of the phytocap for two years.

Mr. Ferree has supervised the investigation of a former casting sand landfill in Australia. He designed the investigation program to evaluate the use of Eucalyptus (species) trees as a phytocap. He evaluated precipitation data to determine the density of tree planting to minimize infiltration.

Mr. Ferree supervised and designed a phytobarrier at two railroad car axle manufacturing facilities. The phytobarrier was installed as a hydraulic control device to minimize off-site migration of VOC-impacted groundwater. The phytobarriers were composed of hybrid poplars. A deep irrigation and fertilization system was installed as part of the system. He has supervised the successful operation and maintenance of the system.

#### Manufactured Gas Plant Facilities

Mr. Ferree has managed site investigations at numerous manufactured gas plant (MGP) sites in Michigan and Ohio and evaluated the presence of contamination using health risk-based exposure pathway evaluations. He has supervised the preparation of work plans, sampling plans, and interim remedial measures plans. He has attended meetings with state

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

regulators to negotiate remedial options and site closure strategies.

Plating Facility

Mr. Ferree managed the subsurface investigation and remediation activities at a USEPA Region V Superfund site composed of a plating facility in Michigan. He evaluated the extent of soil and groundwater contamination, prepared a site investigation report, and supervised the installation of the selected appropriate remedial technologies for soil and groundwater. The remedial options included installation of a sheet pile wall and asphalt cap for groundwater isolation. Impacted soil on an adjacent property was removed and disposed as hazardous waste at an off-site facility. The property will be closed with MDEQ and USEPA as an industrial property with deed restrictions.

Brass Forging/Manufacturing Facility

Mr. Ferree conducted a subsurface investigation to determine the extent of soil

and groundwater contamination associated with a leaking trichloroethylene storage tank. The investigation included drilling inside a manufacturing facility in a manner that did not disrupt manufacturing operations. Mr. Ferree evaluated options for soil and groundwater remediation.

Commercial/Industrial/Manufacturing Facilities

Mr. Ferree prepared and supervised numerous baseline environmental assessments (BEAs) at industrial/commercial properties that have been identified as sites of contamination. He has prepared Category N, D, and S baseline environmental assessments (BEAs), as required by site redevelopment plans.

Due Diligence

Mr. Ferree has been involved in the completion of due diligence projects associated with electric co-generation facilities, scrap yards, chemical facilities, and commercial properties.

#### Publications/Presentations

Ferree, R.A., R. Kertes, P. Potter, D. Petersen and K. Savage. 1988. *Comparative Petrographic Maturity of River and Beach Sand, and Origin of Quartz Arenites*. Journal of Geological Education 36:79.

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Phone #

Fax #

	DAMES & MOORE
	A DAMES & MOCRE GROUP COMPANY

November 24, 1999

Mr. Marlyn Moon Environmental Manager Eagle-Picher Automotive Hillsdale Tool Division 135 E. South Street Hillsdale, Michigan 49242

Mr. Michael Dixon
Environmental Engineer
Eagle-Picher Industries, Inc.
250 East Fifth Street
Suite 500
Cincinnati, Ohio 45202

Re: Implementation of Remedial Actions

Eagle-Picher Automotive - Hillsdale Tool Division

Co

Dept.

Fax #

Rubber Products and Daisy II Facilities

Hillsdale, Michigan

Dames & Moore Proposal No. 045-99P209R3

#### Gentlemen:

Dames & Moore is pleased to present this revised proposal for implementation of remedial actions at the Hillsdale Tool Division Rubber Products and Daisy II Facilities in Hillsdale, Michigan. The purpose of the remedial action is to remediate a trichloroethylene (TCE) plume in groundwater. The intent of the remedial action was presented in the revised Remedial Action Plan (RAP) submitted to the Michigan Department of Environmental Quality (MDEQ) on June 18, 1998. It is Dames & Moore's understanding that Hillsdale Tool and Eagle-Picher have decided to proceed on an Interim Measures basis.

Dames & Moore will install and operate for the specified lump sum cost a remediation system that will achieve the groundwater cleanup criteria as specified in the Interim Measures Remedial Action Plan (formerly the Revised Remedial Action Plan), Section 5.3.2 for the constituents and conditions described in the Interim Measures Remedial Action Plan.

#### SCOPE OF WORK

The Scope of Work and associated costs presented herein covers installation, start-up, operation and maintenance, and sampling and analysis associated with the horizontal and vertical extraction wells needed for remedial action.

Offices Worldwide



Mr. Marlyn Moon Mr. Michael Dixon Dames & Moore Proposal No. 045-99P209R3 November 24, 1999 Page -2-

An experienced horizontal well driller, Longbore, Inc. will be contracted to conduct the drilling and installation of the horizontal well. Longbore has drilled numerous horizontal wells as part of remedial actions throughout the country and in Michigan. Their experience was summarized by Mr. David Bardsley at the Hillsdale facility on October 12, 1999.

# Cleanup Cost Cap Insurance

Dames & Moore will protect Hillsdale Tool and Eagle-Picher from higher remediation costs via the purchase of Cleanup Cost Cap Insurance for this project. Dames & Moore will obtain the insurance and indemnify Hillsdale Tool and Eagle-Picher for cleanup costs that are above the anticipated cost of cleanup in accordance with the Interim Measures Remedial Action Plan. Coverage is provided for cleanup cost at, adjacent to or emanating from the defined site location.

Hillsdale Tool and Eagle-Picher will not be responsible for any remediation costs above the specified project cost. Dames & Moore will guarantee that the remedial design defined in the Interim Measures Remedial Action Plan, or such revised design as may be agreed to, will remediate the TCE plume in groundwater emanating from the Hillsdale facilities (the Known Contamination) to the MDEQ cleanup standard of 5 parts per billion ( $\mu g/l$ ), except as noted below. Dames & Moore will be responsible for all costs to remediate the Known Contamination above the Specified Project Cost, such as the cost of any additional groundwater extraction well(s), pumps, treatment equipment, and the operation and maintenance of the system beyond the projected six (6) years of remediation.

This cleanup cost cap does not extend to additional costs incurred due to changes in MDEQ cleanup standards, contamination encountered other than the Known Contamination, or third-party liability arising from the Known Contamination.

# Pre-mobilization and Pre-drilling Activities

Dames & Moore will develop a Health & Safety plan in accordance with Occupational Safety and Health Administration (OSHA) requirements. The Health & Safety plan will discuss air monitoring and other safety issues associated with the installation of the wells, along with the constituents which site personnel may be exposed to during sampling, and will provide procedures in case of an emergency. Dames & Moore will also contact the Michigan One-Call system to clear utilities in the areas of suspected disturbance.



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The design of the horizontal well will be finalized at this stage and subcontract agreements will be completed. The remedial system components will be selected and ordered for installation and the project schedule will be finalized. Remedial actions will be coordinated among the subcontractors and with Hillsdale Tool to ensure successful completion of the project.

An advance team composed of Dames & Moore and the horizontal well driller personnel will mobilize to the site prior to drilling activities to mark the location of the borings, confirm the location of utility lines, and identify any suspected obstacles that may impede the drilling and/or trenching process. The advance team will include Dames & Moore's project manager, the horizontal well driller's project manager, the horizontal well driller's drill crew supervisor, and the horizontal well driller's lead driller.

# Recovery Well Installation

Dames & Moore is proposing that one horizontal well and three vertical extraction wells are installed. The current proposed configuration is presented below and is dependent on field verification of utilities and space requirements.

We currently anticipate that horizontal recovery well will be constructed as follows:

- The entry point for the horizontal extraction well will be located near the southeast corner of the Rubber Products building.
- The screened length of the horizontal well will be approximately 1,000 feet, will run beneath the Daisy II facility and will end near monitoring well MW-14S.
- The exit point for the horizontal extraction well will be located on the southwestern portion of the Klein Property

Drilling operations will consist of installing the pilot wellbore, enlarging the pilot, and pulling the High Density Polyethylene (HDPE) well material through the enlarged pilot wellbore. The steering systems that will be used at the site will be emitting electronic signals into the ground throughout the pilot wellbore drilling process. A wire line guidance tool will be used to assure that drilling is taking place at the desired depth. Total depth of the proposed wells is anticipated to be approximately 65 to 75 feet below ground surface (bgs) with the screens set at the base of the shallow sandstone unit. Depth of the horizontal length or screen length is critical and is based on



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the thin water column (less than 10 feet) and the thickness of the underlying confining shale (approximately 10 feet thick).

Wellbore reaming will be performed to remove the appropriate amount of cuttings, along with minimizing the chance of causing a void or subsidence. After the pilot wellbore has been drilled, the bore will be enlarged by passing successively larger reaming bits through the wellbore. Depending on actual conditions, one to two passes with the reaming bits may be required to enlarge the bore to approximately eight to nine inches in diameter, which is the diameter of the hole required to pull 6-inch diameter HDPE well material back through the pilot wellbore. The well screen material will be 6-inch diameter, 0.030 or 0.020 slot, HDPE SDR-11.

The drill cuttings and waste drilling fluids (predominantly water) will be containerized, sampled for disposal profiling, and disposed in accordance with all applicable regulations. Dames & Moore is assuming that the solid materials will have to be disposed of as hazardous. We are also assuming that the solids removal system used will remove sufficient solids to allow for discharge of the drilling fluids to the sanitary sewer. The volume of cuttings is estimated at approximately 30 cubic yards and the volume of spent drilling fluid and development water is estimated at approximately 8,500 gallons. The actual volumes generated will be dependent on site conditions. The spoils will be containerized on site in lined, covered roll-off boxes. Spent drilling fluids will be containerized in fractionization (frac) tanks for characterization prior to discharge to the sanitary sewer system. All drilling tools, riser pipe, and screen will be decontaminated prior to drilling and installation. Decontamination will consist of a high-pressure hot water wash.

#### Horizontal Well Development

After the horizontal well has been completed and sealed, well-development actions will be initiated. Well development will consist of jetting a thinning agent into the well, pumping the residual fluids, and then flushing the well with clean water. For the purpose of this bid, we have estimated two days to develop the horizontal well. Well development fluids will be added to the spent drilling fluids contained in large fractionization (frac) tanks for sampling, profiling, and staged addition to the sanitary sewer system.

#### Vertical Extraction Well Installation

Three vertical extraction wells will be installed after completion of the horizontal extraction well. The wells will be located on the southwest corner of the Daisy II Plant. The wellbores will be drilled



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utilizing hollow-stem augers to bedrock and air rotary through bedrock to total depth. Each well bore will be advanced five feet into the shale confining unit, approximately 75 feet total depth.

The wells will be constructed with 10 feet of 4-inch stainless steel screen and a five foot sump set into the confining unit. A sand filter pack will be placed using the positive displacement (tremie) method. The filter pack will extend from the bottom of the wellbore to five feet above the screen. A four foot hydrated bentonite seal will be placed above the filter pack. A cement/bentonite slurry will be used to grout the annulus from the bentonite seal to just below ground surface.

# Piping Installation

Trenching for the installation of discharge piping to conduct the produced water to the City of Hillsdale sanitary sewer system will be performed after completion of the horizontal well and vertical wells. Piping estimates assume that a tie-in to the sanitary sewer system is possible at the manhole near the horizontal well entry point near the southern property boundary. Permission has been obtained from Hillsdale Board of Public Utilities for discharge of these fluids to the sanitary sewer system. Four-inch diameter HDPE piping will be installed from the pump to the discharge point. Piping from the well will be joined prior to discharge and a meter will be installed to monitor discharge quantities. An attempt will be made to discharge the vertical wells at the same location. However, due to access restrictions, a separate discharge point may be necessary inside the Daisy II facility or in the immediate vicinity of the vertical wells.

# System Start-Up and Optimization

Following well development, the pumps and associated controls will be installed and the wells hooked into the discharge piping system. The system will be optimized to obtain the highest sustainable groundwater pumping rates. Groundwater levels in the surrounding shallow monitoring wells will be measured to determine the amount of drawdown in each. We area assuming that pump installation and system optimization can be completed within one week of completion of well development. A sample of the extracted groundwater will be collected following optimization activities to assess the concentration of TCE in the extracted groundwater. A groundwater sample will also be collected from the downgradient monitoring well (MW-14S) in order to establish a baseline concentration at the beginning of remedial actions.



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#### Operation and Maintenance

It is anticipated that the well can be pumped at a minimum sustained rate of 0.3-1.5 gallons per minute. This could be higher based upon past experience with horizontal wells. The produced water will be directly discharged to the City of Hillsdale Publicly Owned Treatment Works (POTW). Permission has been granted from the POTW to discharge up to 14,000 gallons per day. For cost estimating purposes, we are assuming that one of extraction well pumps will require replacement every year. Based upon our modeling conducted for this site we are anticipating that the system will remain active for six years from the start of operations.

We are assuming that Dames & Moore personnel will check the system monthly following completion of start-up and optimization activities. Additionally, the system will be equipped with an Autodialer programed to call the St. Louis office of Dames & Moore if the pumps shut down. The effectiveness of the system will be tested quarterly. The discharge will be sampled and each of the shallow wells will be gauged and sampled every quarter. The discharge stream and well samples will be analyzed for volatile organic compounds (VOCs) by EPA Method 8260.

#### Reporting

Quarterly Operations and Maintenance (O&M) reports will be submitted in the form of letters and will address system performance over the previous quarter. The report will summarize the quarterly analytical and operational results and will be submitted to Eagle-Picher Automotive. After receiving comments on the report, Dames & Moore will modify the report as appropriate and shall resubmit copies of the final report to Eagle-Picher Automotive and MDEQ.

After remedial actions are complete, a final closure report will be prepared that summarizes the remedial activities completed at the site.

#### COSTS AND CONTRACT CONDITIONS

Dames & Moore proposes to perform this work in accordance with the attached Professional Services Agreement previously agreed to by Eagle-Picher Automotive as part of our January 31, 1996 proposal for a lump sum cost of \$755,000. This cost does not include a sewer commodity charge of \$2.64/1,000 gallons which Dames & Moore assumes Eagle-Picher Automotive will pay direct. For your information, a breakdown of costs is provided below.

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Activity	Cost
Premobilization (design completion, subcontractor procurement, preparation, etc.)	\$ 18,500
Dames & Moore Oversight (incl. rebillables)	\$ 60,000
Horizontal Well Subcontractor	\$280,000
Vertical Well Subcontractor	\$ 20,000
Soil/Water Disposal	\$ 24,500
System Controls (Paragon)	\$ 42,000
Pumps/Piping/Vaults	\$ 25,000
O&M (quarterly sampling, reporting, periodic site visits including anticipated pump replacement)	\$249,000
Laboratory Analytical	\$ 36,000
TOTAL	\$755,000

A payment schedule for receipt of the lump sum cost is proposed as follows: 30% or \$226,500 upon mobilization to the site, 30% or \$226,500 after successful installation of the horizontal well, 25% or \$188,750 after successful system start up, and the remaining 15% or \$113,250 payable after the system has been operating six months and hydraulic control can be demonstrated such that the plume is no longer expanding.

#### **SCHEDULE**

It is anticipated that horizontal well drilling activities and well development will take approximately two to four weeks. Vertical well drilling will take approximately five days. System startup and optimization will be completed in approximately one week. This proposal assumes that the system will adequately remediate the site to desired levels within six years, but neither Hillsdale Tool nor Eagle-Picher will be responsible for costs that are defined by this Interim Measures Remedial Action Plan.

#### **ASSUMPTIONS**

- The wells will be installed by using the "Entry/Exit" drilling method and using a down hole mud motor and tru-track and/or "wireline" navigation.
- All work will be conducted in Level "D" safety protection.



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- Eagle Picher Automotive will be responsible for location of on-site utilities.
- Well development will be performed for a maximum of three eight hour days.
- Eagle Picher Automotive will provide water at a minimum rate of 60 gallons per minute to the drilling site.
- Unimpeded access to the site with rubber tire mounted drilling equipment will be available.
- No unions will be encountered or involved in the work performed at the site.
- All drilling can be performed without collecting soil samples.
- Recovered groundwater can be discharged directly to the sanitary sewer system. Fees
  associated with discharge of the recovered groundwater to the POTW will be paid directly
  by Eagle-Picher Automotive.
- No costs have been provided for additional monitoring well installations which may be required by MDEQ.
- No costs have been provided to obtain formal RAP approval.
- Obtaining a Restrictive Covenant for the remaining impacted soil is included in the cost estimate. However, costs have not been included in the event that MDEQ requires additional investigation and/or remediation.

#### PROJECT STAFFING

Mr. Gary F. Vajda, P.E. will serve as the Project Director and Mr. David J. Heinze, P.E. will continue to serve as Project Manager. The oversight of the installation of the remedial wells will be provided by Mr. Steve Shroff who is familiar with the project and by David Heinze, as necessary. Additional field staff may be utilized from Dames & Moore's Detroit office. Ronald J. Sides, Ph.D. will continue to serve as technical consultant for the project.

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Dames & Moore appreciates the opportunity to submit this proposal for your review and we look forward to assisting Eagle-Picher Automotive Hillsdale Tool Division on this project. If this proposal is satisfactory, please return an executed copy of the Authorization to Proceed for our records. Should you have any questions concerning any aspect of this proposal, please do not he sitate to contact me at (314) 993-4599.

Very truly yours,

DAMES & MOORE

Gary F. Vailla, P.E.

Sezior Vice President & General Manager

Central Region

cc:

Paul Harper - EPI

DJH

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## **AUTHORIZATION TO PROCEED**

By signing this proposal, EAGLE-PICHER AUTOMOTIVE HILLSDALE TOOL DIVISION agrees to the terms and conditions of this proposal and authorizes Dames & Moore to undertake the work as detailed herein.

For EAGLE-PICHER AUTOMOTIVE HILLSDALE TOOL DIVISION:

Signature

Date

Name (Type or Print)

Title (Type or Print)



# PROFESSIONAL SERVICES AGREEMENT

THIS AGREEMENT (*Agr			19by and
	MOORE*) and		Senth
Office #	(*CLENT	). The Agreemen	t between DAMES
& MOORE and the CLIENT or	onsiss of the following	terms and condition	ns, all exhibits and
attachments hereto, and any	written modifications to	this Agreement	

#### Scope of Services

A detailed scope of services is attached hereto and incorporated herein as Attachment A. CLIENT agrees that the scope of services contains all criteria, design and construction be performed by DAMES & MOORE. DAMES & MOORE represents that it is fully qualified to perform the services described in Attachment A.

The scope of services and any limitation on charges may be modified from time to time as agreed to in writing by the parties.

#### 2. Professional Services Charges

For the performance of its services, DAMES & MOORE shall be paid by CLIENT in accordance with the schedules of personnel and equipment charges attached hereto and in corporated herein as Attachment B and C or as otherwise specified in Attachment A.

invoices shall be issued every four (4) weeks and payable upon receipt. A late charge of 1-1/2% per month (but not to exceed the maximum rate allowed by law) is due on any armounts not paid within thirty (30) calendar days from the date of invoice. Thereafter, any payment will be applied first to accrued late charges and then to any renaining balance. If CT\_ENT objects to any portion of an invoice, CLENT shall promptly notify DAMES & MOORE in writing. Any part of an invoice not in dispute shall be paid within thirty (30) callendar days from the date of invoice. CLENT is responsible for all costs and attorneys fees incurred by DAMES & MOORE in collecting delinquent amounts.

#### Termination/Suspension of Services

DAMES & MOORE may terminate or suspend its services on ten (10) calendar days written notice if timely payment of invoices is not made. Upon termination or suspension for nonpayment, DAMES & MCORE may withhold any and all records, reports in vestigations, analyses, and other data, documents or work product, until CLIENT's account is current.

Either party may terminate this Agreement on not less than ten (10) calendar days written notice to the other specifying any other substantial failure by the other party to reform in accordance with the terms of this Agreement through no fault of the terminating y. Such termination shall not be effective, however, if that substantial failure has been sedied before expiration of the period specified in the notice.

Upon any termination or suspension, DAMES & MOORE shall be paid for all authorized work performed up to the date of termination or suspension, plus termination or suspension expenses, including, but not limited to, reassignment of personnel, additional sub-contractor costs, and any other direct and indirect costs resulting from termination or suspension. DAMES & MOORE may complete, at CLIENT's expense, reports, records. investigations, analysis or other data or documents reasonably necessary to place DAMES & MOORE's files in order, or to protest DAMES & MOORE's professional reputation.

#### 4. Delays and Force Majeure

Neither DAMES & MOORE nor its CLIENT shall be liable for delays in or failures to perform services caused by circumstances beyond its reasonable control, including, but not Limited to, acts of God, acts and/or omissions of federal, state and/or local government authrorities and regulatory agencies, strikes, riots, civil unrest, war, lockouts, accidents, and/or for delays resulting from actions or inactions of CLIENT or third parties, DAMES & MOORE shall be given an appropriate time extension and shall be compensated for all costs of labor, equipment and other direct and indirect costs DANES & MOORE incurs during any delay or interruption of services caused by circumstances beyond DANES & MOORE's control. Delays of more than ninety (90) calendar days shall, at the option of either party, make this Agreement subject to termination.

CLIENT recognizes that delays relating to the processing of permit applications of the approval of permits are beyond the control of DANIES & MOORE DANIES & MOORE makes no warranties and CLIENT waives any claims against DANIES & MOORE relating to the timeliness of approvals or the success of permit applications prepared under

#### 5. Ownership of Documents

Unless expressly agreed otherwise, CLIENT is the owner of all final documents, including, but not limited to, reports, investigations and written analyses generated by DAMES & MOORE within the scope of services. DAMES & MOORE is the owner of all other documents, including, but not limited to, all proposals, and other written communications generated within the scope of services. DANIES & MOORE may retain copies of all investigations, reports, or written analyses owned by CLIENT.

DAMES & MOORE returns all intellectual property rights, including any patent or copy with trasting out of the scope of services, except to the extent that the scope of services

copyright mixing out of the scope of services, except to the extent that the scope of services specifically requires DAMES & MOORE to develop for CLIENT a proprietary concept, device or enhancement to an existing concept or device. Reuse by CLIENT or third parties of proposals investigations, reports, analyses, any other document, communication, or ghted material or patent owned by DAMES & MOORE or any device or management developed by DAMES & MOORE without the written permission of DAMES & MOORE is at CLIENT's sole risk and expense. CLIENT agree to defend, internally, and hold DANES & MOORE harmless from all claims, damages and expenses, including reaso mable atterneys' fees and costs, ansing out of such unauthorized reuse. Further,

CLIENT shall reasonably compensate DAMES & MOORE, in addition to compensation for the original use hereunder, for my reuse or unauthorized use of my DAMES & MOORE proposals. investigations, reports, my other document, communication, device or enhancem violation of any copyright or patent.

DAMES & MOORE shall retain all records it deems pertinent relating to the scope of services for a period of two (2) years from the date of completion of services, unless otherwise required by Liw.

#### 6. Right of Inspection and Audit

ITDAMES & MOORE's billing is based upon its labor and material costs, CLIENT may, at reasonable times and upon reasonable notice during the term of this Agreement and for two (7) years after its completion, have reasonable access to all pertinent DAMES & MOORE records and accounts arising out of the Scope of Services. DAMES & MOORE shall be reimbursed for all personnel, materials and copying costs incurred for any CLIENT inspection and audit.

#### 7. Assignments and Subcontractors

Neither CLIENT nor DAMES & MOORE shall assign or otherwise transfer its rights. duties, and obligations under this Agreement without the prior written consent of the other. However, DAMES & MOORE may subcontract for those services which are ordinarily or customarily provided by others or which are necessary to prevent or minimize danger to persons, property or equipment

#### Independent Contractor Status

Unless expressly stated otherwise in the scope of services. Dames & Moore is performing its services under this Agreement as an independent contractor of CLIENT. No other relationship exists between DAMES & MOORE and CLIENT.

#### Insurance

DAMES & MOORE agrees to maintain statutory workers compensation, employer's liability, commercial general and automobile liability insurance, and professional liability insurance coverages, but not in any respect that exceeds what is otherwise DAMES & MOORE's obligations for work performed under this Agreement. Certificates shall be issued upon request.

#### 10. Standard of Care

DAMES & MOORE's services will be conducted, within the limits prescribed by this Agreement, in a manner consistent with that level of care and skill ordinarily exercised by members of the same professions currently practicing in the same locality under similar conditions. No other guaranty, warranty, or representation, either expressed or implied, is methoded or intended herein or in DAMES & MOORE's proposals, contracts, or reports. CLIENT agrees to provide DAMES & MOORE prompt written notice of any defect or suspected defect in its services.

#### 11. Limitation of Liability

- A. DAMES & MOORE has neither created nor contributed to the existence of any hazardous, radioactive, toxic, or otherwise dangerous substance or condition at the site, and its compensation hereunder is in no way commensurate with the potential risk of injury or loss that may be caused by exposure to such substances or conditions. Accordingly, notwithstanding any other provision herein, the liability of DAMES & MOORE, its officers, employees, agents and subcontractors, whether arising in tort, contract, or otherwise, for any and all actual or alleged Loss (as hereinafter defined) arising directly or indirectly from the release or threatened release or handling of pre-existing or client-generated hazardous substances and waste at or near the project site, shall not exceed \$1,000.
- B. Neither DAMES & MOORE nor CLIENT shall be liable for indirect or consequential damages, including without limitation, loss of use and loss of profits, incurred by either or by their subsidiaries or successors.
- C. In addition to the limitations provided in Sections 11A and 11B, and notwithstanding any other provision herem, DANES & MOORE's liability shall be limited to injury or loss caused by the negligence of DANES & MOORE, its subcontractors and agents hereunder, and the liability of DANES & MOORE, its subcontractors and subcontractors, whether arising in tort, contract, or otherwise, for any and all actual or alleged Loss arising directly or indirectly from:
  - professional errors or omissions; and/or
  - environmental impairment and pollution; and/or
  - radiation, auclear reaction, or radioactive substances or conditions (3)

shall not exceed \$100,000. CLIENT agrees to limit any other claim(s) of any kind whatsoever of CLIENT against DAMES & MOORE, its officers, employees, agents and subcontractors to an amount not to exceed \$500,000.

D. Increased liability limits under Sections 11C(1) and (2) may be negotiated prior to commencement of services upon CLIENT's written request and agreement to pay an additional fee. But for the inclusion of paragraphs 11 and 12, DANES & MOORE's compensation for services would otherwise be greater and/or DANES & MOORE would not have entered into this Agreement

#### 12. Indemnity

DANIES & MOORE agrees to defend, indemnify, and hold harmless CLIENT to the fullest extent permitted by law from and against any and all actual or alleged loss, cost, damage, expense and liability (including reasonable attorneys' fees and other costs of defense and/or explained in animy (including death), property damage or destruction and economic loss (hereinafter collectively referred to as "Loss") caused by the negligent acts, errors or omissions, or willful misconduct of DAMES & MOORE, its officers, employees, agents or subcontractors, subject only to limitations in Section 11 above and to Section 12 B below.

B. CLIENT agrees to indemnify and hold harmless DAMES & MOORE, its

B. CLIENT agrees to indemnify and hold hamiless DAMES & MOORE its officers, employees and subcontractors to the fullest extent permitted by law firm and against any and all actual or alleged Loss, including attorneys fees and other reasonable costs of defense. (1) for Loss caused by the negligence or willful misconduct of CLIENT, its officers, employees, or its other agents, contractors or subcontractors, and (2) for any third party claim for Loss, but only to the extent that such Loss exceeds the relevant amount if DAMES & MOORE's liability specified in Section 11 above and does not result solely from the negligence or willful misconduct of DAMES & MOORE, its agents or subcontractors.

#### 13. Confidentiality

DAMES & MOORE and CLIENT shall hold confidential all business or technical information obtained from the other or its affiliates under this Agreement for a period of five (5) years after obtaining such information, and during has period shall not disclose such information without the other's consent except to the extent required for (1) performance of services under this Agreement (2) compliance with professional standards of conduct for preservation of the public safety, health and welfare, (3) compliance with any court order or other governmental directive; and/or (4) protection of the disclosing party against claims or liabilities arising from performance of services under this Agreement. The parties' obligations hereunder shall not apply to information in the public domain or information lawfully acquired on a non-confidential basis from others.

#### 14. Right of Entry and Property Responsibility

CLIENT shall grant, or cause to be granted at CLIENT's expense, free access to any property upon which services are to be performed. The CLIENT shall notify the owners and possessors of such property, whether they be lawfully or unlawfully in possession, that CLIENT has granted DAMES & MOORE free access to such property. CLIENT shall secure permission and any permits necessary to allow DAMES & MOORE free access to such property at no charge to DAMES & MOORE unless otherwise specifically agreed to in writing.

DAMES & MOORE shall be responsible for its own activities at the property including the safety of its employees, but shall not assume control of or responsibility for the property or the safety of persons not in DAMES & MOORE's employ.

#### 15. Site Uncertainties

In soils, foundations, groundwater, and other geotechnical or geoscience investigations, actual conditions may vary materially from those noted at test points or sample intervals. Because of these inherent uncertainties, changed or unanticipated conditions may arise during subsequent activities at the project site that could potentially affect project scope and cost. Because of these inherent uncertainties, DAMES & MOORE reports and opinions with respect to the site condition and potential construction or cleanup costs are not guaranteed to be a representation of actual site conditions or costs, and the onsequences of unanticipated conditions during subsequent activities at the project site are at the responsibility of DAMES & MOORE.

# 16. Client Disclosures and Discovery of Different Site Conditions

A. CLIENT is responsible for accurately delineating project boundaries. CLIENT warrants full disclosure of all known, assumed or suspected structures, tanks, utilities, pipelines and hazardous waste and substances at, under or near the project site. CLIENT shall provide all known and/or available information, including, but not limited to, plot plans, as-builts, surveys, reports, hydrographic data, previous geotechnical or environmental investigations and any other data pertaining to the project site. This information shall be provided before DAMES & MOORE seemmences services. DAMES & MOORE shall take reasonable precautions to avoid any known, assumed or suspected structures, tanks, utilities or pipelines. However, DAMES & MOORE is not liable and CLIENT waives any claim for any consequence of any action of DAMES & MOORE, or incorrect advice, judgment or decision based on any incomplete or inaccurate information furnished by CLIENT or third parties upon which DAMES & MOORE reasonably relies, and CLIENT indemnifies DAMES & MOORE against thard party claims resulting from such action, advice, judgment or decision, and against attorneys fees and other reasonable expenses of defending against such claims.

B. DAMES & MOORE shall promptly notify CLIENT in writing of subsurface, latent or unusual conditions at the project site differing materially from those disclosed by CLIENT or reasonably known or anticipated by DAMES & MOORE. CLIENT shall promptly investigate these conditions. If conditions materially differ, causing an increase in DAMES & MOORE's costs or time required to perform any part of the scope of services, the parties shall modify the scope of services and DAMES & MOORE's compensation and time for performance accordingly.

# 17. Hazardous Substances and Waste; Samples

CLIENT warrants that, if it knows or suspects that hazardous substances and waste may exist at the property, it has so informed DANIES & MOORE. If unantitipated hazardous substances and waste are discovered, DANIES & MOORE shall promptly notify CLIENT and take such measures that in its professional opinion, are appropriate to preserve and protect human health and safety indoor the environment. CLIENT shall be responsible for all costs and consequences arising from the discovery of unanticipated hazardous substances and waste. CLIENT also agrees that DANIES & MOORE has no responsibility as a handler, generator, operator, treater, storer, transporter, or disposer of hazardous substances and waste found or identified at or near the project site.

All samples contaminated by hazardous substances and waste are the property and ponsibility of CLIENT. CLIENT has agreed that DANES & MOORE shall preserve and return such samples to CLIENT within forty-five (45) calendar days of testing. To the extent that CLIENT has requests that DANES & MOORE shall assist the CLIENT in arranging for the lawful disposal, treatment and transportation of contaminated samples. CLIENT waives any claim against DANES & MOORE arising out of DANES & MOORE's handling of contaminated samples.

All other samples, excluding hazardous waste and substance samples, shall be preserved and disposed of by DAMES & MOORE in accordance with DAMES & MOORE's regular retention program, unless special arrangements are made between the parties.

For purposes of Section 12A and this Section 17, the term "hazardous substances and

For purposes of Section 12A and this Section 17, the term "hazardous substances and waste" shall mean and include, but shall not be limited to, any elements, constituent, chemical, substance, compound or micrare which are defined in or included under, or regulated by a local, state or federal law, rule, ordinance or regulation pertaining to environmental regulation, contamination, clean-up or disposal, including, without limitation, the Comprehensive Envaronmental Response Compensation and Liability Act of 1980 ("CERCLA"), the Superfund Amendments and Resultorization Act of 1986 ("SARA") the Resource Conservation and Recovery Act ("RCRA"), the Clean Water Act ("CWA"), the Clean Air Act ("CAA"), the Marine Protection Research and Sanctuaries Act ("MPRSA"), the Occupational Safety and Health Act ("OSHA"), including any state and local counterparts of such laws (all such laws, rules and regulations being referred to collectively as "Environmental Laws").

#### 18. Construction Site Observation

When expressly agreed to in the scope of services, DAMES & MOORE will make visits to the project site during construction to observe the progress of the work. DAMES & MOORE is not required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. DAMES & MOORE shall not, during such visits or a result of such observations, supervise, direct or have control over the Contractor's work, nor be responsible for reviewing the Contractor's construction means, methods, techniques, sequences or procedures.

#### 19. Integration

This Agreement is the final and complete understanding of CLIENT and DAMES & MOORE. This Agreement supersedes all prior or contemporaneous communications, whether oral or written, concerning the subject matter of this Agreement. This Agreement shall take precedence over any preprinted terms and conditions contained in any purchase order or other written communication between the parties.

#### 20. Severability

Any provisions of this Agreement held in violation of my law or ordinance shall be deemed stricken, and all remaining provisions shall continue valid and binding upon the parties. CLIENT and DAMES & MOORE shall attempt in good faith to replace my invalid or interestible provisions of this Agreement with provisions which are valid and enforceable and which come as close as possible to expressing the intention of the original provisions.

#### 21. No Third Party Beneficiaries

This Agreement shall not create any rights or benefits in any person or entity other than CLIENT and DANIES & MOORE, nor is it intended to create any third party beneficiaries to it.

#### 22. Governing Law and Remedies

Unless otherwise provided in an attachment, this Agreement shall be performed and construed under the laws of the State of California without regard to that State's conflict of laws provisions. In the event of any claim, dispute or other matter in question between the parties, CLIENT and DAMES & MOORE agree to submit the matter to binding arbitration in accordance with the then-existing rules of the American Arbitration Association, to the extent that no policy rights of any insurer of either party are compromised without that insurer's consent. Arbitration shall be held in Los Angeles, California unless otherwise agreed by the parties. Before the invocation of such arbitration, or promptly after the invocation of such arbitration, if such invocation is remonably needed to protect either party against the expiration of a statute of limitations or similar defense, the parties shall meet to discuss in good faith the possible resolution of the matter without formal proceeding. Either party may ask for the use of non-binding mediation with a third party or other alternative dispute resolution procedures, which shall be pursued in good faith until either party determines them to be unlikely to produce a resolution.

# 23. Attorneys' Fees

In the event of mediation, arbitration or litigation between CLIENT and DAMES & MOORE arising out of the Agreement, each party shall be entitled to all reasonable costs and atomeys' fees to the extent that party prevails. CLIENT also agrees to pay all costs, including, without limitation, personnel charges under DAMES & MOORE's Standard Schedule of Charges and reasonable atomeys' fees incurred by DAMES & MOORE in responding to any subpoena or any other lawful demand by CLIENT or a third party (including any governmental entity) for information, testimony or documents relating to the services provided under this Agreement.

#### CLIENT

Firm Name:		
Firm Address:		
Signature:		
Typed Name and	Title:	
Date:		
CONSULTANT		
Firm Name:	DAMES & MOORE, INC.	
Firm Address:		
Signature:		
Typed Name and	Title:	
Date:		



#### MODIFIED

# SCHEDULE OF CHARGES UNITED STATES

The compensation to Dames & Moore for our professional services is based upon and measured by the following elements, which are computed as set forth below.

#### 1.0 PERSONNEL CHARGES

- 1.1 Charges for employees are computed by multiplying the total direct salary cost of our personnel (expressed as an hourly rate) by a factor of 2.5. The total direct salary cost shall be a sum equal to the direct payroll cost (computed by dividing the annual payroll cost by 1, 940 Hours) plus 40 percent of same to cover payroll taxes, insurance incident to employment, sick leave and other employee benefits. The time of an employee of subsidiary companies or a retained consultant devoted to the project is charged at an assigned billing rate.
- 1.2 The 40 percent employee benefit factor is used for work performed by personnel assigned to offices in the United States. For work performed by personnel in our offices in other countries, it will vary depending on the employee benefits paid in the particular location.
- 1.3 When outside the United States, employees' total direct salary cost will be increased by the premium customarily paid by other organizations for work at the location.
- 1.4 Time spent in either local or inter-city travel, when travel is in the interest of the work, will be charged for in accordance with the foregoing schedule; when traveling by public carrier, a maximum charge of eight hours per day will be made.
- 1.5 Time spent in responding to any subpoena or other judicial or governmental request for documents or testimony in connection with the Scope of Services shall be compensated without regard to any other limitation on compensation.

#### 2.0 EOUIPMENT CHARGES

- 2.1 Computer control of project costs normally billed at a rate of \$1.25 per each \$50 of job charges, or fraction thereof, will not apply to this project.
- 2.2 Other Dames & Moore equipment, if used, will be billed at the rates noted in the proposal. Where not noted in the proposal, equipment will be billed in accordance with the published rates in the current Dames & Moore Equipment Rate Catalog.

#### 3.0 OTHER SERVICES AND SUPPLIES

- 3.1 Charges for services, equipment and facilities not furnished directly by Dames & Moore, and any unusual items of expense not customarily incurred in our normal operations, are computed as follows:
  - 3.1.1 Non-personnel costs, including attorneys' fees, incurred in responding to any subpoena or other judicial or governmental request for documents or testimony in connection with the Scope of Services, without regard to any other limitation on compensation.
  - 3.1.2 Tariff rates plus 10 percent for telecommunications and delivery services.
  - 3.1.3 Cost plus 10 percent for other shipping charges, professional services, subsistence, transportation, printing and reproduction, miscellaneous supplies and rentals that are for less than \$1,000.
  - 3.1.4 Cost plus 15 percent for surveying services, land drilling equipment, construction equipment, testing laboratories and contract labor that are for less than \$1,000.
  - 3.1.5 For services listed in parts 3.1.3 and 3.1.4 that exceed \$1,000, Dames & Moore will contract as Owner's Agent for Eagle-Picher Automotive and will issue all significant purchase orders with instructions to submit invoices for payment by Eagle-Picher Automotive to Dames & Moore. Dames & Moore will review and approve invoices for direct payment by Eagle-Picher Automotive. For this consideration, Dames & Moore will charge a 5% contract management fee.
- 3.2 Travel expenses from St. Louis to Detroit will not be billed to the project.



Mr. Marlyn Moon
Eagle-Picher Automotive, Hillsdale Tool Division
Dames & Moore Proposal No. 045-99P097
April 26, 1999
Page -4-

Dames & Moore appreciates the opportunity in assisting Eagle-Picher Automotive, Hillsdale Tool Division on this project. Please return an executed copy of the Authorization to Proceed for our records. Should you have any questions concerning any aspect of this proposal, please do not hesitate to contact either of the undersigned at (314) 993-4599.

Very truly yours,

DAMES & MOORE

David J. Heinze, P.E.

Environmental Section Leader

Daniel J. Price, R.G.

Associate

DJH/DJP:cmw VPPROJ1998W45VPROPOSALW40\_27.DOC

cc:

Mr. Michael B. Dixon, CHMM, CEA - Eagle-Picher Industries, Inc.

#### **AUTHORIZATION TO PROCEED**

By signing this proposal, EAGLE-PICHER AUTOMOTIVE - HILLSDALE TOOL DIVISION agrees to the terms and conditions of this proposal for work conducted pursuant to EPI and HT request.

For EAGLE-PICHER AUTOMOTIVE - HILLSDALE TOOL DIVISION:

Signature

Date

MARLYN MOON

Name (Type or Print)

ENVIRONMENTAL MANAGER

Title (Type or Print)

Offices Worldwide

TRANSMISSION OK

TX/RX NO.

2459

CONNECTION TEL

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PAGES

2

RESULT

OK

# EAGLE 學 PICHER AUTOMOTIVE

HILLSDALE TOOL DIVISION



# ENVIRONMENTAL DEPARTMENT

Fax Transmittal

Date <del>'/-</del>	-29-99			
To: Pleas	se deliver this fax to: Darid Heiny			
Company	Dames & Moore			
	1314-993-4895			
Hillsdale Too 135 East So Telephone Sent by : M Direct Ph. No	uth St. Hillsdale, Mi. 49242 (517) 439-9381 Fax (517) 439-5953			
	pages are missing or unreadable, please call 517-439-0547			
Subject/Remarks Signal proposal # 045-99-P897				
6001	DAULP			

# Phase I Environmental Site Assessment

EaglePicher Automotive Hillsdale Division Rubber Plant 215 Industrial Drive Hillsdale, Michigan

APRIL 29, 2004



Infrastructure, buildings, environment, communications

Naun Shawn

Dawn L. Sharvin Staff Scientist

Joseph A. Quinnan, PE, PG Principal Hydrogeologist/Engineer

Robert A. Ferree, CPG Vice President

# Phase I Environmental Site Assessment

EaglePicher Automotive Hillsdale Division Rubber Plant 215 Industrial Drive Hillsdale, Michigan

Prepared for:

EaglePicher Incorporated 3402 East University Drive Phoenix, Arizona 85034

Prepared by: ARCADIS G&M of Michigan, LLC 25200 Telegraph Road Southfield Michigan 48034 Tel 248 936 8000 Fax 248 936 8111

Our Ref.: SF003152.0002.00006

Date: **April 29, 2004** 

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- Site Layout Map, EaglePicher Automotive, Rubber Plant, 215 Industrial Drive, Hillsdale, Michigan
- Plant Layout Map, EaglePicher Automotive, Rubber Plant, 215 Industrial Drive, Hillsdale, Michigan

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# **Appendices**

- A Site Photographs
- B EDR Report
- C Aerial Photographs
- D Historic Topographic Maps
- E Asbestos and Lead Building Inspection Report
- F ARCADIS Resumes

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

# **Executive Summary**

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) of the EaglePicher Rubber Plant (subject property) located at 215 Industrial Drive in Hillsdale, Michigan. The Phase I ESA site reconnaissance was conducted on January 7, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records.

The subject property, situated at the southeastern intersection of Industrial Drive and Uran Street in Hillsdale, Michigan consists of an approximately 15,000-square foot manufacturing building on approximately 6 acres of land (shared with EaglePicher's Industrial Drive Plant at 221 Industrial Drive). Activities at the subject property consist of the manufacture of rubber at the subject property that is used in the automotive parts that are manufactured at other EaglePicher plants. Operations have remained unchanged since the subject property was constructed and developed in 1977.

ARCADIS' assessment revealed the following recognized environmental conditions (RECs) in connection with the current and historic operations conducted at the subject property and adjacent properties.

- In 1985, a release of an unknown quantity of trichloroethylene (TCE) to the subsurface occurred at the subject property. In response to the TCE release, numerous environmental investigations have been conducted at the site. Currently, a groundwater pump-and-treat system is in operation at the subject property to remediate groundwater. In addition, groundwater from 18 monitoring wells is currently sampled for volatile organic compounds (VOCs) on a quarterly basis. Analytical results indicate the highest concentrations of TCE and breakdown daughter products are observed at Monitoring Wells MW-3S, MW-4S, MW-8S and MW-13, located downgradient of the source area.
- The EaglePicher plant at 221 Industrial Drive poses an environmental risk to the subject property because the site is located adjacent to the subject property, and the leaking underground storage tank (LUST) incidents that have occurred at the site

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

are considered 'open' according to the Michigan Department of Environmental Quality (MDEQ).

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

- The green linoleum (in the main hallway) with the small squares and the roof tar (on metal pan roof) at the subject property were identified as asbestos containing material (ACM). The fire door and frame were assumed to contain asbestos.
- The yellow paint at the subject property was found to be lead-based (0.5% or greater lead by weight).

Analytical results of recent groundwater samples collected from Monitoring Wells MW-3S, MW-4S, MW-8S and MW-13 located on the subject property indicate concentrations of TCE above the MDEQ residential cleanup criteria. According to the MDEQ, the subject property meets the requirements to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, of 1994, as amended) for groundwater impacts resulting from a TCE release at the subject property.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

#### 1. Introduction

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) of EaglePicher's Rubber Plant (subject property) located at 215 Industrial Drive in Hillsdale, Michigan. The Phase I ESA site reconnaissance was conducted on January 7, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records.

#### 1.1 Purpose

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

# 1.2 Detailed Scope of Services

The Scope of Services for this ESA is set forth in a letter from ARCADIS to Mr. Dave Krall of EaglePicher dated November 25, 2003 and was conducted pursuant to a Master Services Agreement between ARCADIS and EaglePicher Automotive. This Scope of Services calls for the ESA to be conducted in accordance with ASTM Standard E1527-00, *Practice for Environmental Site Assessments* and to comprise the following specific elements:

- Regulatory database search;
- Site reconnaissance, review of facility records, and interview of local plant personnel;
- Review for federal, state, and local environmental liens against the property;
- Qualitative review of potential asbestos-containing materials (ACMs) and leadbased paints (LBP); and
- Ownership, polychlorinated biphenyl (PCB) status, and condition of electrical transformers, capacitors, switches, etc.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

The purpose of the ESA is to investigate conditions at the facility and identify any Recognized Environmental Conditions (RECs). A REC as defined in the ASTM standard is as follows:

"The presence or likely presence of any hazardous substances or petroleum products on property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

As part of the Phase I ESA, ARCADIS reviewed readily available regulatory information to assess the possible risk for environmental liabilities from regulatory action, hazardous materials spills, or documented hazardous waste disposal at the subject property or nearby properties (i.e., properties located within ASTM-specified search distances from the subject property). Records of compliance with applicable environmental regulations and permits from the Michigan Department of Environmental Quality (MDEQ), City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency were reviewed. These searches were conducted via the Internet and telephone calls.

The site inspection included an assessment of the property with the objectives of identifying releases, past releases, or material threat of releases of hazardous substances or petroleum products (or evidence of such) at the site. This physical inspection included, if applicable, but was not limited to, the following items:

- Indications of spills or releases.
- Evidence of on-site disposal practices.
- Chemical, solid waste, and other environmental management practices.
- Current or past usage of underground storage tanks (USTs) and aboveground storage tanks (ASTs).

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

- Adjacent land uses.
- Identification of physiographic features.
- Wastewater treatment.
- Evidence of standing surface water.
- Sources of drinking water.
- Visual indications of equipment that may contain PCBs, if applicable.
- Potential sources of contamination or other environmental concerns.

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec Industrial Hygiene Services (Fibertec) of Holt, Michigan at the subject property on March 12, 2004. Fibertec's results are discussed in Section 5.8.

The assessment did not include the collection or analysis of soil, air, water, or groundwater samples. A title search was also not conducted.

#### 1.3 Significant Assumptions

ARCADIS has assumed that the information sources utilized for this assessment provide complete and accurate information. Evaluations presented in this report are based exclusively on information provided by EaglePicher, the site representative, local agency personnel, available public records, and observations made during the site visit.

# 1.4 Limitations and Exceptions

This Phase I ESA is limited in nature and should not be construed to be a characterization of environmental regulatory compliance or of conditions above or below grade. ARCADIS performed the ESA by focusing on hazardous materials and petroleum usage, storage and disposal areas.

The Phase I evaluations presented in this limited environmental assessment are based on information provided by EaglePicher personnel, available site records, state file records, readily accessible historical documents, and observations made during the site

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# Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

reconnaissance. In preparing this report, ARCADIS has accepted as true the information provided by EaglePicher personnel on current and historical operations of the facility. ARCADIS warrants that the services performed were conducted in a competent and professional manner in accordance with sound consulting practices and procedures. ARCADIS cannot warrant the actual site conditions described in this report beyond matters amenable to visual confirmation within the limits of this site assessment program. ARCADIS makes no express or implied representation or warranty that this document or the information contained herein is fit for a particular purpose, nor does ARCADIS make any representation or warranty regarding the accuracy or reliability of information or documents provided by other parties that are contained or relied on herein. This document and the information, findings, opinions and recommendations herein have been prepared for the benefit only of EaglePicher, and no third party is intended as a beneficiary or intended to rely on this document or the information herein unless otherwise expressly stated in writing by ARCADIS.

#### 1.5 Special Terms and Conditions

No special terms and conditions were imposed on this ESA.

#### 1.6 Reliance

There are no third party rights or benefits conferred under this report. Use of this report is strictly limited to EaglePicher, the only party to whom ARCADIS intends to confer any rights. Any use of the contents of this report by any third party is at the sole risk of that party.

#### 1.7 Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work dated November 25, 2003.

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec Industrial Hygiene Services (Fibertec) of Holt, Michigan at the subject property on March 12, 2004. Fibertec's results are discussed in Section 5.8.

#### 2. Site Description

The information below was obtained through an inspection of the subject property conducted by Ms. Dawn Sharvin of ARCADIS on January 7, 2004. Photographs taken

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

by ARCADIS during the site walk-through of the subject property are presented in Appendix A.

#### 2.1 Location and Legal Description

The subject property, approximately 6.8 acres in size, is situated at the southeastern corner intersection of Industrial Drive and Uran Street in Hillsdale, Michigan (see Figure 1). The City of Hillsdale is located in Hillsdale County in southern Michigan. The subject property is located in Section 21, Township 6S, Range 03W at latitude 41°54′57.2"(north) and longitude 84°37′35.0" (west).

According to the City of Hillsdale Assessor's Office, the parcel number for the subject property is 006-221-276-001, and the property is zoned I-1, light industrial usage. The parcel consists of the 221 Industrial Drive plant and the subject property. The legal description is listed below:

A parcel of land, lying in the East ½ of the Northeast ¼ of Section 21, Town 6 South, Rage 3 West, City of Hillsdale, Hillsdale County, Michigan. Described as commencing at the East ¼ corner of said Section 21; Thence N 00°03'30" W, along the East line of said Section 21, a distance of 496.49 feet, to the point of beginning. Thence N 89°39'45" W, a distance of 600.55 feet; thence N 00°03'30" W, parallel with the east line of said Section 21, a distance of 496.48 feet; thence S 89°39'45" E, a distance of 600.55 feet, to the east line of said Section 21; thence S 00 °03'30" E, along the east line of said Section 21, a distance of 496.48 feet to the point of beginning; subject to restrictions, conditions and easements of record; containing 6.8 acres. Also, a right-of-way for the purpose of ingress and egress to the above described property, described as: beginning at the Northeast corner, of the above described parcel; thence N 89°39'45" W, along the north line of the above described property, a distance of 600.55 feet; thence N 00 °03'30" W, a distance of 66.00 feet; thence S 89 °39'45" E, a distances of 600.55 feet; thence S 00 °03'30" E, a distance of 66.00 feet, to the point of beginning.

It is a condition of the within conveyance that said premises may be used only for industrial or commercial purposes and that all construction thereon facing Highway M-99, Mechanic Street, Arch Avenue, Uran Avenue and any future streets and avenues, shall be of masonry or steel construction and that no tavern, motel, public hall, drive-in theatre or restaurant, slaughterhouse, tannery or rendering plat, or other building for the carrying on of any noxious, dangerous or

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

offensive trade or business shall be erected thereon, and that said premises shall not be used for any of the above-mentioned purposes nor for any hospital, cemetery, asylum, or as a junkyard. L-454-90 Ward 2.

#### 2.2 Site Vicinity General Characteristics

The subject property is located within the Hillsdale Industrial Park (an area of industrial development) and is situated west of Carleton Road (M-99) and the St. Joseph River.

#### 2.3 Current Use of the Subject Property

At the subject property, EaglePicher manufactures rubber used in automotive parts that are manufactured at EaglePicher's other plants. Pre-fabricated rubber strips and chemical additives are placed on a rubber mill (located in the center of the building) and heated to change the chemical properties (i.e., strength, heat resistance) of the rubber. The rubber is then molded in either electrical or steam presses located throughout the building.

The subject property employs approximately 30 employees and is in operation 24 hours a day (three 8-hour shifts), five days a week.

#### 2.4 Historic Use of the Subject Property

According to Ms. Stacy Greene, Environmental Health and Safety (EHS) Manager at the subject property, site operations have remained unchanged since the building was constructed in the 1977. Prior to 1977, the subject property was undeveloped and used as agricultural farm fields.

## 2.5 Description of Structures

The subject property currently consists of one industrial plant measuring approximately 15,000 square feet. The building is one story in height and consists of manufacturing and office areas. The main office area is located along the north side of the building. The building is constructed with a concrete slab-on-grade foundation, steel column and beam superstructure, cinder block walls, and flat roofs. Building exterior finishes included paint, decorative concrete masonry units, and sheet metal siding.

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

Grade level driveways and concrete and asphalt grade parking areas are present on the northern and eastern sides of the building. Vegetated, grass areas are present along the western and southern side of the building.

According to the City of Hillsdale Building Department, the following permits were obtained at the subject property:

- Permit No. 8-744, dated October 19, 1977, for the construction of an industrial building measuring 100 feet wide, 150 feet long, and 18 feet in height.
- Permit No. 9-464, dated May 6, 1985, for the construction of a covered chip bin area.
- Permit No. 89-045, dated June 2, 1989, for the construction of a building addition (boiler room).

#### 2.6 Current Uses of the Adjoining Properties

The subject property is surrounded by various industrial warehouses including Teleflex Automotive Group (an automotive parts manufacturer); EaglePicher's Tech Center (263 Industrial Drive) and Industrial Drive Plant (221 Industrial Drive); ACT Laboratories, Inc. (manufacturer of automotive paint test panels); Dow Automotive/Essex Specialty Products (supplier of automotive adhesives, sealants, and body-engineered systems); and Clark Electrical. Agricultural fields are located in the western half of the Hillsdale Industrial Park.

#### 3. User Provided Information

#### 3.1 Title Records

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

#### 3.2 Environmental Liens

No agreements with the any third party or the regulatory agencies having jurisdiction of the site and concerning EaglePicher's environmental commitments were provided by EaglePicher nor were any discovered by ARCADIS during the Phase I ESA site reconnaissance activities.

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

According to the Hillsdale County Health Department, no environmental liens exist on the subject property.

#### 3.3 Specialized Knowledge

ARCADIS understands that EaglePicher currently conducts quarterly groundwater sampling and operates a groundwater pump-and-treat system as a result of a 1985 release of trichloroethylene (TCE) to the subsurface. ARCADIS does not have any other specialized knowledge of any consent orders or other environmental enforcement actions against the subject property.

In addition, a deed restriction imposed on the Hillsdale Industrial Park limits the site usage to industrial or commercial purposes.

According to Mr. Douglas Rommeck, Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher, the Rubber Plant is has received certification under the ISO (International Organization for Standardization) 14001 system.

#### 3.4 Valuation Reduction for Environmental Issues

EaglePicher indicates that they are unaware of any valuation reduction of the subject site resulting from any current or historical environmental issues.

#### 3.5 Owner, Property Manager, and Occupant Information

The subject property is currently owned and operated by EaglePicher. Prior to the EaglePicher, the subject property was owned and operated by Hillsdale Tool & Manufacturing Company who was subsequently purchased by EaglePicher.

#### 3.6 Reason for Performing Phase I ESA

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

#### 4. Records Review

To obtain a historical perspective of the subject property and the regulatory status of the subject property and neighboring facilities, the following resources were ordered and/or reviewed:

- State and federal regulatory database records,
- Fire insurance maps,
- Historical aerial photographs, and
- Historic topographic maps.

#### 4.1 State and Federal Regulatory Database Records

#### 4.1.1 Environmental Record Sources

ARCADIS retained Environmental Data Resources, Inc. (EDR) of Southport, Connecticut to perform an ASTM Phase I database search of state and federal environmental records. A regulatory database review was performed to obtain information about the use of the subject property, surrounding land use, and the potential for off-site environmental impacts to the subject property. The following federal and state databases were searched.

Federal Databases (Standard):

- National Priority List (NPL)
- Proposed NPL
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/No Further Remedial Action Planned (NFRAP)
- Corrective Action Reports (CORRACTS)
- Resource Conservation and Recovery Information System (RCRIS)-Transportation, Storage, Disposal (TSD)

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## Phase I Environmental Site Assessment

EaglePicher Automotive Rubber Plant 215 Industrial Drive Hillsdale, Michigan

- RCRIS Large Quantity Generator (LQG)
- RCRIS Small Quantity Generator (SQG)
- Emergency Response Notification System (ERNS)

State of Michigan Databases (Standard):

- State Hazardous Waste Site (SHWS)
- State Landfill (LF)
- Leaking USTs (LUST)
- USTs
- Baseline Environmental Assessment (BEA)
- Historic LF
- USTs on Indian Land

ARCADIS reviewed federal and state environmental regulatory agency databases in addition to the ones required by the ASTM Standard E 1527-00 as provided by EDR. The report produced by EDR is included as Appendix B. The following databases were searched:

Federal Databases (Supplemental):

- Superfund (CERCLA) Consent Decrees (CONSENT)
- Records of Decision (ROD)
- National Priority List Deletions (Delisted NPL)
- Facility Index System/ Facility Identification Initiative Program Summary Report (FINDS)
- Hazardous Materials Information Reporting System (HMRIS)

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- Material Licensing Tracking System (MLTS)
- Mines Master Index File (MINES)
- Federal Superfund Liens (NPL Liens)
- PCB Activity Database System (PADS)
- Department of Defense Sites (DOD)
- RCRA Administrative Action Tracking System (RAATS)
- Toxic Chemical Release Inventory System (TCRIS)
- Toxic Substances Control Act (TSCA)
- Section 7 Tracking Systems (SSTS)
- Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/TSCA Tracking System (FTTS)
- US Brownfields (a listed of Brownfields sites)

State of Michigan Databases (Supplemental):

- ASTs
- SHWS Deletions (DEL SHWS)
- Pollution Emergency Alerting System (PEAS)

The objective of the regulatory database review is to identify those sites that use, store, treat, generate, dispose of, or otherwise handle hazardous materials, or have been listed for known or suspected releases of hazardous substances. A copy of the EDR report is included as Appendix B.

## 4.1.1.1 Subject Property Findings

The subject property was listed in the following databases:

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- SHWS: A SHWS Site Assessment Model (SAM) score of 34 (scale ranges from 0 to 48, with 48 being the highest/most toxic score) was assigned to the Rubber Plant. It lists the facility status as Interim Response in Progress, the pollutant as TCE, and the source of the pollutant as industrial organic chemicals.
- RCRIS-SQG: According to the information contained within the EDR report, one violation has been recorded against the subject property on August 24, 1994 for 'Generator Other Requirements'. The violation was brought into compliance on February 14, 1995.
- FINDS: This database lists 'other pertinent environmental activity has been identified at the site'. This activity includes being listed on the AIRS/AIRSA Facility Subsystem (AIRS/AFS), Biennial Reporting System (BRS), RCRA Information System (RCRA INFO), and TRIS.

Based on ARCADIS' review of the information contained within the EDR report, the remedial activities currently being conducted at the subject property resulting from the release of TCE at the subject property constitute a REC.

#### 4.1.1.2 Surrounding Properties

The following properties were identified on the databases found in the EDR report. Additional information regarding these sites can be found in the EDR report in Appendix B.

- 'D II', 221 Industrial Drive, Hillsdale, Michigan: UST, LUST
- Daisy Parts #2', 221 Industrial Drive, Hillsdale, Michigan: DEL SHWS
- Hillsdale Tool & Mfg. Company Inc., Daisy Parts Plant 2, 221 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- EP HT Div Technical Ctr, 263 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- Bose Corporation, 260 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- ACT Laboratories Incorporated, 273 Industrial Drive, Hillsdale, Michigan: RCRIS-LQG, FINDS

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- Bilcor Plastics, 2250 Mechanic Road, Hillsdale, Michigan: UST
- Eaton Technologies, 240 Uran Street, Hillsdale, Michigan: RCRIS SQG, FINDS
- Essex Specialty Products, 190 Uran Street, Hillsdale, Michigan: DEL SHWS
- Former Bilcor Plastics Plant, 411 Carleton Road, Hillsdale, Michigan: UST, LUST, SHWS
- Playford Dodge Sales Inc., N M-99, Hillsdale, Michigan: UST, LUST

Based on ARCADIS' review of the information contained within the EDR report, the LUST incidents that have occurred at the EaglePicher Industrial Drive Plant located at 221 Industrial Drive poses an environmental risk to the subject property because the site is located adjacent to the subject property and is considered open according to the MDEO.

#### 4.2 Physical Setting Sources

#### 4.2.1 Topography

A review of the 7.5-minute United States Geological Survey (USGS) topographic quadrangle map for Hillsdale, Michigan (1952; photorevised 1979) indicates that the ground surface in the immediate vicinity and surrounding area of the subject property gently slopes eastward toward the St. Joseph River. The subject property is located at surface elevations of approximately 1,140 feet above mean sea level (ft amsl) (see Figure 1).

#### 4.2.2 Geology

According to W.R. Farrand, and D.L. Bell, the unconsolidated deposits underlying the subject property generally include pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to cobbles. It is a mixed lithology of sedimentary, igneous, and metamorphic rocks that are well to poorly sorted, well-stratified, and crossbedded in places. The deposits occur as fluvial terraces along present and abandoned drainage ways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. It includes narrow belts of Holocene alluvium inset below outwash terraces, alongside present streams, but is too limited to map separately. The unconsolidated deposits vary in thicknesses of 3 to 65 feet (Farrand 1984).

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Underlying the unconsolidated glacial deposits is the Mississippian-aged Coldwater Shale and Limestone of the Osagean and Kinderhookian Series and is typically encountered at depths of 100 to 200 feet below ground surface (Western Michigan University 1981).

According to the investigations conducted by ETG Environmental, Inc. (ETG) and Dames & Moore, fracturing exists in the intervening shale layer between the upper and lower sandstone units. Bedrock (Marshal Formation) is encountered at depths of approximately 25 to 40 feet below ground surface. The first bedrock unit encountered is either a thin shale layer, typically less than 10 feet in thickness (shallow groundwater zone), or the near-surface sandstone. Beneath this sandstone is a consistent shale layer ranging in thickness from 10 to 20 feet. The shale was encountered at depths of approximately 60 to 70 feet below ground surface and overlies another sandstone to shaley sandstone unit, approximately 10 feet in thickness, at approximately 70 to 90 feet below ground surface (deep groundwater zone).

#### 4.2.3 Groundwater

According to an October 2003 groundwater flow map included in the *October 2003 Quarterly Sampling Report* prepared by URS Corporation, Farmington Hills, Michigan, groundwater flow is to the northeast toward the St. Joseph's River. Groundwater in the vicinity of the site is generally encountered at depths ranging from 45 to 60 feet below ground surface (at elevations of approximately 1,100 ft amsl).

#### 4.2.4 Watershed

The St. Joseph River, located approximately 0.65 mile east of the subject property, flows to the north-northwest and eventually drains to Lake Michigan. Bullhead Lake is located approximately 1.25 miles northeast of the subject property

#### 4.3 Historical Use Information on the Property

#### 4.3.1 Fire Insurance Maps

Sanborn<sup>TM</sup> Fire Insurance Maps were not available for the subject property.

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#### 4.3.2 Aerial Photographs

ARCADIS reviewed historical aerial photographs to depict the visual history of the subject property and adjacent properties. Aerial photographs for 1938, 1955, 1969, 1978, 1983, 1997, and 1998 were reviewed (see Appendix C).

The 1938 aerial photograph depicts the subject property and adjacent properties as agricultural fields with associated residential homes. Earthmoving/construction activities, resembling two airport runways, are visible on the Hillsdale Airport property located farther east. Carleton Road (M-99) and Barr Street are developed to the east and south, respectively.

The 1955 aerial photograph depicts the subject property and adjacent properties as they appeared in the 1938 photograph. However, construction of the Hillsdale Airport has been completed.

The 1969 aerial photograph depicts the subject property as it appeared in the 1955 photograph. Clear cutting or development of the agricultural fields to the west has occurred and a water body has been constructed to the southwest. Uran Street and Arch Avenue have been constructed, and a mobile home park, located to the northeast of the subject property, has been constructed. Additional development (of unknown type) has occurred to the northeast along M-99 and to the southeast along Barr Street. The Hillsdale Airport is no longer in existence.

The 1978 aerial photograph shows the plant building on subject property has been constructed. Industrial Drive is also constructed and extends from Mechanic Road north until just past Uran Street. Industrial development has occurred along Industrial Road, Uran Street, and Mechanic Road. Beck Road has been constructed to the north with industrial development.

The 1983 aerial photograph depicts the subject property as it appeared in the 1978 photograph with the construction of the parking lot along the western side of the subject property. Industrial Drive has been extended northward, and Proctor Street to the north has been constructed. Additional development has occurred on the surrounding properties in each direction.

The 1997 and 1998 aerial photographs depict the subject property as it appears today with the building and storm water drain field constructed. Uran Street has been extended westward past Industrial Drive.

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No RECs were identified in the review of historical aerial photographs.

#### 4.3.3 Historic Topographic Maps

ARCADIS reviewed historic topographic maps of the subject property and adjacent properties dated 1959, 1979 (1959 photorevised) and 1990 (see Appendix D). The subject property is depicted as undeveloped on the 1959 and 1979 maps and the scale of the 1990 map is too small to discern any detail about the subject property.

The Hillsdale Airport to the east of the subject property is present on the 1959 map. Uran Street, part of Industrial Drive and industrial development are shown on the 1979 map.

No RECs were identified in the review of historical topographic maps.

#### 4.3.4 Previous Environmental Investigations

In 1985, a release of TCE occurred at the subject property. TCE, formerly used in a degreasing bath at the Rubber Plant drained through an overflow pipe into an uncovered 55-gallon drum located in an unpaved parking lot on the northern side of the plant. The drum, which did not have secondary containment, overflowed, and, as a result, impacted the surrounding soil. The exact quantity of TCE spilled is unknown. According to Dames & Moore (now URS Corporation) who prepared a March 2, 1998 *Voluntary Remedial Action Plan* for the site, additional sources of TCE at the site may have been from two former USTs located at the southern side of Daisy II Plant (221 Industrial Drive). TCE was formerly used at the Daisy II plant and was discharged to onsite waste oil USTs that were taken out of service and removed in 1995.

In response to the 1985 TCE release, numerous investigations have been conducted at the site and are summarized below.

- Keck Consulting Services, Inc. conducted two subsurface investigations in 1985.
   Several borings and three monitoring wells were installed in the area of the former release.
- Midwest Water Resources Management designed a soil vapor extraction (SVE) system to remediate soil near the release area. The system was installed by ETG in June 1986. ETG reported that 99 percent of the TCE had been recovered from the

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soil by August 1993. Subsequent investigations conducted by ETG included packer testing of the original monitoring wells, the reinstallation of the original wells as shallow (above the shale bedrock) and deep (below the shale bedrock) nested wells, and the installation of additional nested wells at the request of the Michigan Department of Natural Resources (MDNR) (now the MDEQ).

Dames & Moore completed a remedial investigation in 1996. Eleven soil borings were installed inside and outside the Rubber Plant to delineate the extent of TCE impacts. Analytical results indicted that TCE was still present in the subsurface beneath the Rubber Plant building. One 4-inch extraction well (EW-1) was installed near the northeastern property boundary. Hydraulic conductivity was estimated at 7.5 feet per day. Additional off-site monitoring wells were installed downgradient to delineate the TCE plume. The SVE system was shut off in October 1996. Dames & Moore recommended a restrictive covenant for the area of remaining impacted soils be put in place at the site.

A groundwater pump-and-treat system, consisting of one horizontal extraction well and three vertical extraction wells, was installed by Dames & Moore. The horizontal well begins at the northeastern corner of the Rubber Plant and extends northeasterly approximately 1,050 feet to approximately 350 feet north of Monitoring Well MW-13. A centrifugal pump is installed within the riser, approximately 1-foot from the screen interval in the southern end of the horizontal well. The vertical extraction wells, located on the southwestern corner of the Industrial Drive Plant, extend approximately 5 feet into the shale confining unit, to approximately 75 feet below ground surface. The wells are constructed of 10 feet of 4-inch stainless-steel screen and a 5 foot sump set into the confining unit. Submersible centrifugal pumps are installed in the vertical extractions wells approximately 5 feet from the bottom of the well. The water extracted from the treatment is discharged to the City of Hillsdale publicly owned treatment works (POTW) under an agreement between Hillsdale Tool (now EaglePicher) and the City.

Groundwater from 18 monitoring wells is currently sampled for volatile organic compounds (VOCs) on a quarterly basis. Analytical results indicate the highest concentrations of TCE and breakdown daughter products are observed at Monitoring Wells MW-3S, MW-4S, MW-8S and MW-13, located downgradient of the source area.

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#### 5. Site Reconnaissance

#### 5.1 Methodologies and Limiting Conditions

On January 7, 2004, Ms. Sharvin of ARCADIS, conducted the site walk-through of the subject property. Ms. Greene of EaglePicher accompanied Ms. Sharvin on the site reconnaissance. There was no precipitation during the site reconnaissance; however, the grounds were covered with snow.

ARCADIS retained Fibertec to conduct ACM and LBP survey of the property.

#### 5.2 General Site Setting

The subject property is situated on the eastern side of Industrial Drive and on the southern side of Uran Street in Hillsdale, Michigan (see Figure 1).

It consists of one industrial manufacturing building measuring approximately 15,000 square feet, paved asphalt parking areas, landscaped grassy areas, and a storm-water drain field (see Figures 2 and 3). Industrial and agricultural properties surround the subject property.

#### 5.3 Observations

The following are the general observations noted during the site reconnaissance of the subject property. Photographs taken by ARCADIS during the site walk-through of the subject property are presented in Appendix A.

#### 5.3.1 Inside Building

- The majority of the building consists of metal machining equipment, mills, and presses that manufacture and mold rubber that is used in the automotive parts that are manufactured at other EaglePicher plants.
- Offices with drop ceilings; cinder block walls; and tile, ceramic, carpet, or linoleum floors are present along the northern portion of the building.
- A paint room with two paint booths is present in the northern portion of the building. Neither of these paint booths requires an MDEQ air permit because the volume of paint that is used is exempt from an air permit.

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- A nonhazardous and hazardous waste storage area is present in the northeastern corner of the building. The area is secured with a locking gate to prevent unsupervised access. Approximately twenty 55-gallon drums were observed stored on the floor; four drums labeled as containing hazardous materials, and sixteen labeled as containing nonhazardous materials. One 800-gallon AST that was empty and one 1,000-gallon AST containing waste oil were also observed in this room.
  - A 90-day hazardous waste storage area was also observed in this room. This area stores waste LBP and paint filters.
- A self-contained, rubber mold cleaning room is in the center of the building, in the eastern half of the building. Employees working in this room wear respirators while cleaning the rubber molds due to the amount of dust that is generated during the cleaning process.
- A rubber mill is located in the center of the building; in the western half of the building. Pre-fabricated rubber strips and chemical additives are placed on the mill and heated to change the chemical properties (i.e., strength, heat resistance) of the rubber. The rubber is then molded in either electrical or steam presses located throughout the building.
- An air compressor room is present along the southern wall of the building. The compressor room is equipped with air circulating fans (on the outside wall) and is kept closed during plant operation.
- A boiler room, containing two boilers, is located along the southern wall of the building. The steam generated from the boilers fuels the steam presses used at the facility. Insulation on the pipes of the boilers is considered suspect ACM.
- Offices, an injection room, a break room, and a quality lab are located along the
  western wall of the facility. The quality lab contains electronic equipment that tests
  the rubber made at the facility for flaws.
- A roll-off container area containing one dumpster is located in the southeastern corner of the building. Nonhazardous industrial waste (wooden pallets, scrap rubber, refuse) was observed in the dumpster.

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#### 5.3.2 Outside Building

- Four wet-type, pad-mounted transformers are located immediately along the southern exterior of the building. The transformers were labeled as non-PCB containing. According to plant employees, the transformers are owned by EaglePicher.
- Grade level asphalt driveways and parking are located along the northern and eastern sides of the building.
- Vegetated, grass areas are present along the western, northern, and southern sides of the building.
- One underground storm-water sewer is installed at the site in the southern driveway.
- A storm-water drainage basin is located north of the subject building and receives storm-water from the underground sewer and roof drains.

#### 5.4 Material Handling and Storage Practices

#### 5.4.1 Solid and Hazardous Waste

Nonhazardous waste generated by the facility includes waste oil/water, scrap rubber, cardboard, wood pallets, and general trash. The wood pallets, scrap rubber, and cardboard are recycled.

The facility generates hazardous wastes in the form of waste LBP (Primary F003; Secondary D001, D040, F005) and paint filters (Primary F003; Secondary D008). The facility is a small quantity hazardous waste generator (MID000809798).

#### 5.4.2 Petroleum Products

Various types of oils (lubricating, hydraulic, and spindle) are used on-site in the machines that manufacture the rubber at the subject property. The oils are either stored in 55-gallon drums or the manufacturing machines. Waste oils are stored in ASTs while awaiting off-site disposal.

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#### 5.4.3 Aboveground and Underground Storage Tanks

There are currently no USTs installed at the subject property. Two ASTs are present at the subject property; one 1,000 gallon AST containing waste oil/water mixture and one 800-gallon that was empty at the time of the site reconnaissance.

#### 5.5 Water, Wastewater, and Storm Water

#### 5.5.1 Potable Water

Potable water is supplied to the subject property by the City of Hillsdale. No drinking water wells are present on the subject property. Up to 16 monitoring wells, one horizontal extraction well, and three vertical extraction wells are present on the parcel of land shared by the Rubber Plant and the Industrial Drive Plant (221 Industrial Drive).

#### 5.5.2 Wastewater

The subject property generates sanitary wastewater that is discharged to the City of Hillsdale combined sanitary sewer system.

#### 5.5.3 Storm Water

Two underground storm-water sewers are installed at the site. One sewer begins in the southern driveway of the Industrial Drive Plant and continues westward until it ends in the drain field located north of the subject building. According to a September 21, 2001 *Storm-water Pollution and Prevention Plan* (SWPP) prepared by the Traverse Group, storm water from the roof drains and surface water at the subject property flow to manholes located in the parking lots that discharge to the underground storm-water sewer which then flows westward to the storm water drain field located north of the building. The drain field connects to a culvert beneath Industrial Drive that ultimately discharges to the St. Joseph River under National Pollutant Discharge Elimination System (NPDES) Permit No. MIS210179.

A sample of the storm-water entering the drain field was collected in 1992. According to the Traverse Group SWPP, the sample did not exhibit visible evidence that the storm-water had been adversely affected.

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#### 5.6 Air Emissions

According to Mr. Rommeck, the subject property formerly emitted a large enough quantity of VOCs from the application of LBP and water-based paints to require an MDEQ air permit. However, currently painting at the subject property is limited and the quantity of VOCs emitted from the subject property are small enough that they no longer require an MDEQ air permit.

#### 5.7 Polychlorinated Biphenyls

Four wet-type, pad-mounted transformers are located along the southern exterior of the building. The transformers were labeled as non-PCB containing. According to plant employees, the transformers are owned by EaglePicher.

#### 5.8 Asbestos and Lead Based Paint Survey

A comprehensive ACM and LBP survey of the subject property with analytical testing was conducted by Fibertec on March 12, 2004. Based on the visual inspection, 19 distinct suspect ACMs and seven major paint colors were identified at the subject property. Fibertec's report is included in Appendix E.

A summary of the analytical results is listed below:

- The green linoleum (in the main hallway) with the small squares was identified as ACM.
- The roof tar (on metal pan roof) was identified as ACM.
- The fire door and frame were assumed by Fibertec to contain asbestos.
- The yellow paint was found to be lead based (0.5%) or greater lead by weight).
- Six paints were found to be lead containing (less than 0.5% lead by weight).
- No paints were found to be non-lead containing (less than 0.5% lead by weight).

Based on the ACM and LBP survey, Fibertec recommends the following activities be conducted:

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- Notify the owner, building maintenance staff, and contractors of the presence, quantity, location, and condition of the ACM and LBP.
- Given the undamaged condition of the linoleum in the main hallway, manage it in place.
- In the event of building renovation or demolition, remove the ACM from areas where they will be disturbed. Control the dust generated from the demolition activities which might generate lead dust and control lead exposure to within regulatory limits.
- Conduct on-site air monitoring during asbestos removal and lead-containing painted surface demolition to document compliance with applicable regulations and to document acceptable air quality following the work.

#### 5.9 Permits

Surface-water runoff from the subject property discharges to the St. Joseph River under NPDES Permit No. MIS210179.

## 6. Interviews

#### 6.1 Interview with Owner/Site Manager

Ms. Greene is the EHS Manager for the subject property and has been employed at the subject property for over one year. The information provided by Ms. Greene about past tenants and site operations is included throughout this report.

Mr. Rommeck, Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher was interviewed regarding the environmental issues at the subject property. The information provided by Mr. Rommeck about past tenants and site operations is included throughout this report.

#### 6.2 Interviews with Occupants

EaglePicher and Hillsdale Tool have occupied the subject property since its construction.

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#### 6.3 Interviews with Local Government Officials

ARCADIS contacted the MDEQ, City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency to review any files that may be present on the subject property. Information received from this department is included throughout this report.

#### 6.4 Interviews with Others

No additional interviews were conducted.

#### 7. Conclusions

In the professional opinion of ARCADIS, an appropriate level of inquiry has been made into the previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize environmental liability.

ARCADIS's assessment revealed the following RECs in connection with the current and historic operations conducted at the subject property and adjacent properties.

- In 1985, a release of an unknown quantity of TCE to the subsurface occurred at the subject property. In response to the TCE release, numerous environmental investigations have been conducted at the site. Currently, a groundwater pumpand-treat system is in operation at the subject property to remediate groundwater. In addition, groundwater from 18 monitoring wells is currently sampled for VOCs on a quarterly basis. Analytical results indicate the highest concentrations of TCE and breakdown daughter products are observed at Monitoring Wells MW-3S, MW-4S, MW-8S and MW-13, located downgradient of the source area.
- Based on ARCADIS' review of the information contained within the EDR report, the EaglePicher plant at 221 Industrial Drive poses an environmental risk to the subject property because the site is located adjacent to the subject property and the LUST incidents that have occurred at the site are considered 'open' according to the MDEO.

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

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- The green linoleum (in the main hallway) with the small squares and the roof tar (on metal pan roof) at the subject property were identified as ACM. The fire door and frame were assumed to contain asbestos.
- The yellow paint at the subject property was found to be lead-based (0.5% or greater lead by weight).

Analytical results of recent groundwater samples collected from Monitoring Wells MW-3S, MW-4S, MW-8S and MW-13 located on the subject property indicate concentrations of TCE above the MDEQ residential cleanup criteria. According to the MDEQ, the subject property meets the requirements to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, of 1994, as amended) for groundwater impacts resulting from a TCE release at the subject property.

#### 8. Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec at the subject property on March 12, 2004.

#### 9. References

Dames & Moore, March 2, 1998. Voluntary Remedial Action Plan, Hillsdale Tool Division, Rubber Products and Daisy II Plants, Hillsdale, Michigan.

Dyko, Barbara, Hillsdale Community Health Agency. Telephone communication with D. Sharvin of ARCADIS. January 2004.

Farrand, W.R. and D.L. Bell. 1984. Quaternary Geology of Southern Michigan. Department of Geological Sciences, The University of Michigan, Ann Arbor, Michigan.

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- Rommeck, Douglas, EaglePicher Manager, Health, Safety and Environment. 2004. Personal communication with D. Sharvin of ARCADIS. January 2004.
- Taylor, Martin, Hillsdale County Building Inspection. Telephone communication with D. Sharvin of ARCADIS. January 2004.
- The Traverse Group, September 21, 2001. Storm-water Pollution and Prevention Plan for EaglePicher Hillsdale Tool Division, Industrial Drive Plant (221 Industrial Drive) and Rubber Plant (215 Industrial Drive)
- URS Corporation, January 19, 2004. October 2003 Quarterly Sampling Report, Hillsdale Too Division: Rubber Products/Daisy II Facilities.
- U.S. Geological Survey, Topographic Map, *Hillsdale, Michigan*, 1992, 7.5-Minute Quadrangle.

Western Michigan University. 1981. Hydrogeologic Atlas of Michigan

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## 10. Signatures of Environmental Professionals

Dawn L. Sharvin Staff Scientist

Joseph A. Quinnan, PE, PG

Naun Shawin

Principal Hydrogeologist/Engineer

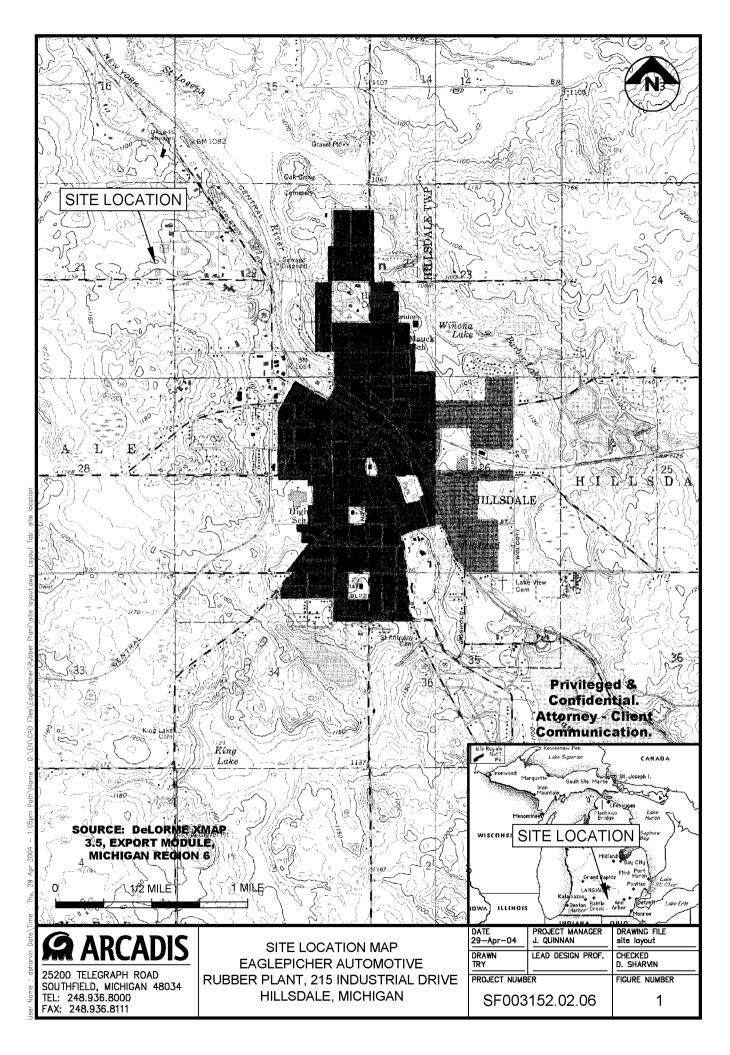
Robert A. Ferree, CPG

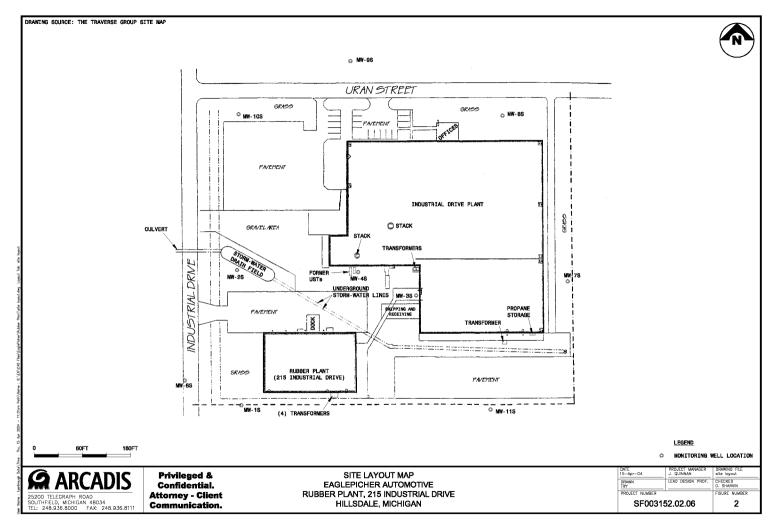
Vice President

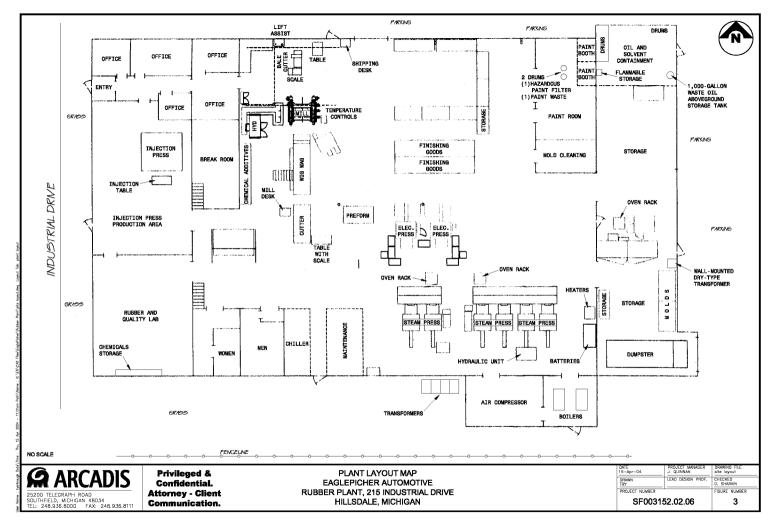
#### 11. Qualifications of Environmental Professionals

Ms. Sharvin is a Staff Scientist with ARCADIS and has performed environmental site assessment and subsurface investigations for over seven years. She has evaluated releases to the environment and supervised remedial actions. Mr. Quinnan is a Principal Hydrogeologist/Engineer with ARCADIS and has more than 13 years of environmental consulting experience that encompasses a variety of infrastructure, natural resource, and hazardous waste projects. Mr. Ferree is a Vice President with ARCADIS and has over 18 years of environmental consulting experience. Resumes for Ms. Sharvin and Messrs. Quinnan and Ferree are included in Appendix F.

Figures

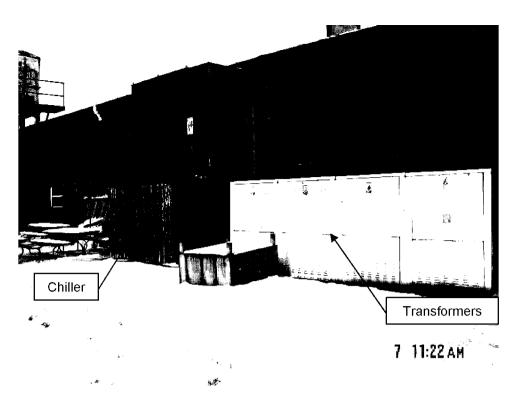




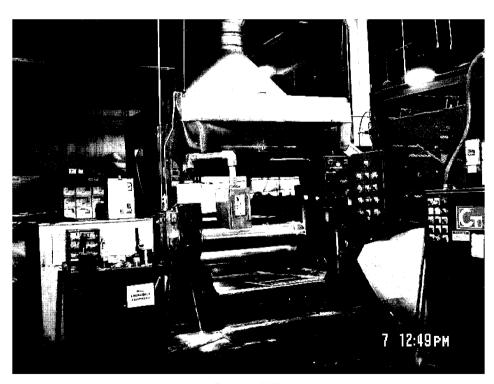


## Appendix A

Site Photographs



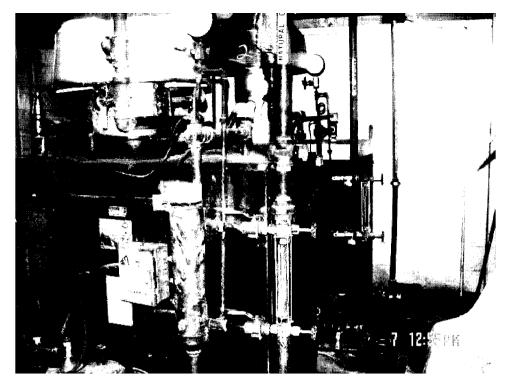
Non-PCB containing, wet-type transformers (4).



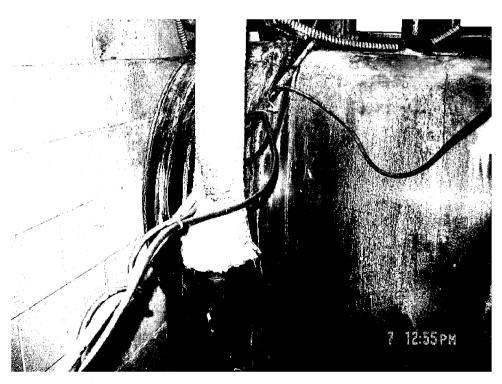
Rubber Mill



DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	ER:	APPENDIX:
SF003 <sup>2</sup>	152.02.06	Α



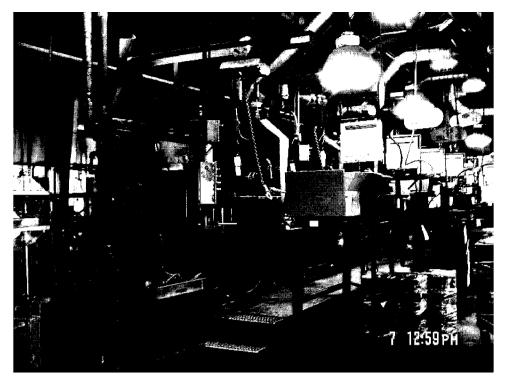
Boiler Room.



Suspect asbestos containing insulation in boiler room.

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.06	A



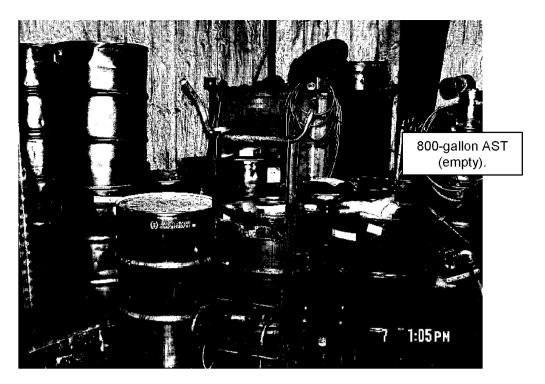
Steam press area.



Hazardous drum storage area.



DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.06	Α



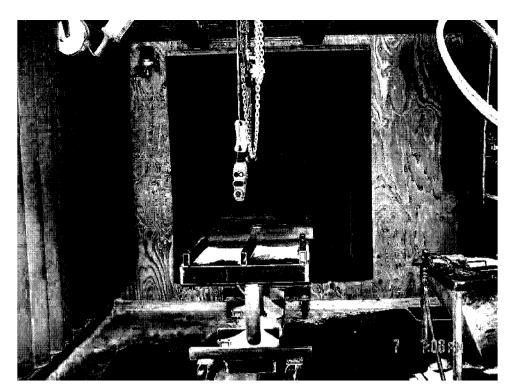
Drum storage and AST area.



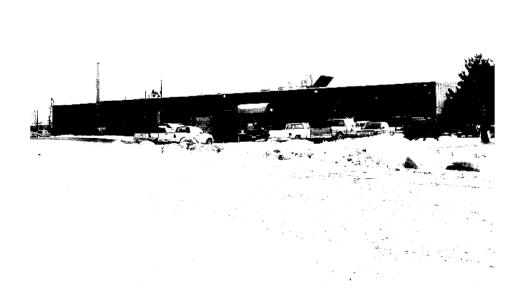
1,000 gallon wastewater/waste oil AST.



DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.06	Α



Rubber mold cleaning room.



View of north side of plant (facing southeast).



DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	ER:	APPENDIX:
SF003 <sup>2</sup>	152.02.06	Α

Appendix B

EDR Report



# The EDR Radius Map with GeoCheck'

EaglePicher 221 Industrial Drive Hillsdale, MI 49242

Inquiry Number: 1097812.4s

December 12, 2003

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

### **ADDRESS**

221 INDUSTRIAL DRIVE HILLSDALE, MI 49242

### COORDINATES

Latitude (North): 41.937200 - 41° 56' 13.9" Longitude (West): 84.653600 - 84° 39' 13.0"

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 694525.5 UTM Y (Meters): 4645253.0

Elevation: 1146 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 41084-H6 HILLSDALE, MI Source: USGS 7.5 min quad index

#### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
D II 221 INDUSTRIAL DR HILLSDALE, MI 49242	UST LUST	N/A
HILLSDALE TOOL AND RUBBER 215 INDUSTRIAL DRIVE HILLSDALE, MI 49242	SHWS	N/A
DAISY PARTS #2 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242	DEL SHWS	N/A
HILLSDALE TOOL & MFG. COMPANY INC., DAISY PARTS 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID000809871
EAGLE-PICHER AUTOMOTIVE RUBBER PLT 215 INDUSTRIAL DR HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID000809798
E P HT DIV TECHNICAL CTR 263 INDUSTRIAL DR HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID985569623

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List

Proposed NPL..... Proposed National Priority List Sites

System

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

CORRACTS...... Corrective Action Report

RCRIS-TSD...... Resource Conservation and Recovery Information System

ERNS..... Emergency Response Notification System

### STATE ASTM STANDARD

SWF/LF\_\_\_\_\_Solid Waste Facilities Database

BEA.....BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

HIST LF.....Inactive Solid Waste Facilities

INDIAN UST...... Underground Storage Tanks on Indian Land

### FEDERAL ASTM SUPPLEMENTAL

CONSENT\_\_\_\_\_Superfund (CERCLA) Consent Decrees

Delisted NPL..... National Priority List Deletions

HMIRS..... Hazardous Materials Information Reporting System

MLTS..... Material Licensing Tracking System

DOD\_\_\_\_\_\_ Department of Defense Sites
RAATS\_\_\_\_\_\_ RCRA Administrative Action Tracking System
TRIS\_\_\_\_\_\_ Toxic Chemical Release Inventory System

FTTS INSP...... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, &

Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Aboveground Tanks

PEAS\_\_\_\_\_ Pollution Emergency Alerting System

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas ...... Former Manufactured Gas (Coal Gas) Sites

TC1097812.4s EXECUTIVE SUMMARY 2

### **BROWNFIELDS DATABASES**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### SURROUNDING SITES: SEARCH RESULTS

data on individual sites can be reviewed.

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-LQG list, as provided by EDR, and dated 09/10/2003 has revealed that there is 1 RCRIS-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ACT LABORATORIES INCORPORATED	273 INDUSTRIAL DR.	0 - 1/8 N	В8	10

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of

the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 2 RCRIS-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation Address		Dist / Dir	Dist / Dir Map ID	
BOSE CORPORATION	260 INDUSTRIAL DR	0 - 1/8 N	<i>B7</i>	9
Lower Elevation	Address	Dist / Dir	Map ID	Page
EATON TECHNOLOGIES	240 URAN ST	1/8 - 1/4 E	10	12

#### STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 09/12/2003 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir Map ID	Page
FORMER BILCOR PLASTICS PLANT	411 CALETON RD	1/4 - 1/2WSW 12	12
Lower Elevation	Address	Dist / Dir Map ID	Page
PLAYFORD DODGE SALES INC	N M99	1/4 - 1/2NNE 13	14

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 09/12/2003 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
BILCOR PLASTICS INC	2250 MECHANIC	1/8 - 1/4 SW	9	11

### STATE OR LOCAL ASTM SUPPLEMENTAL

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

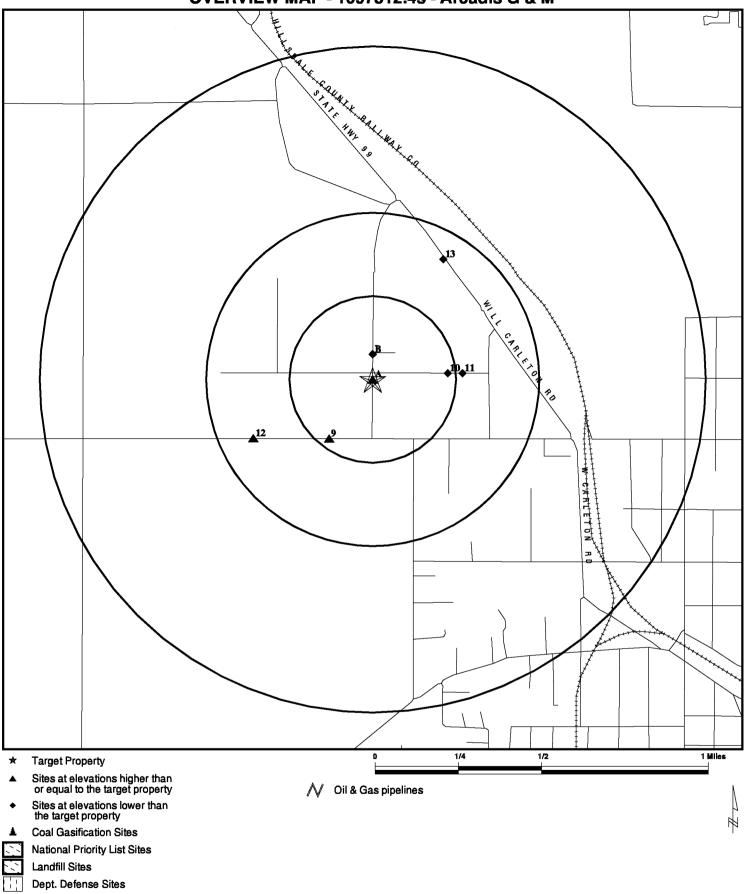
A review of the DEL SHWS list, as provided by EDR, and dated 09/23/2003 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ESSEX SPECIALTY PROD INC	190 URAN ST	1/4 - 1/2E	11	12

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
BILCOR PLASTICS	SHWS
KESSERLING, HOWARD 4	SHWS
HILLSDALE COAL GASIFICATION FAC	SHWS
LUCAS LF/JONESVILLE GARBAGE SRVC	SHWS
STILLWELL KEN FORD MERCURY INC	RCRIS-SQG, FINDS
METALLIST INC	RCRIS-SQG, FINDS

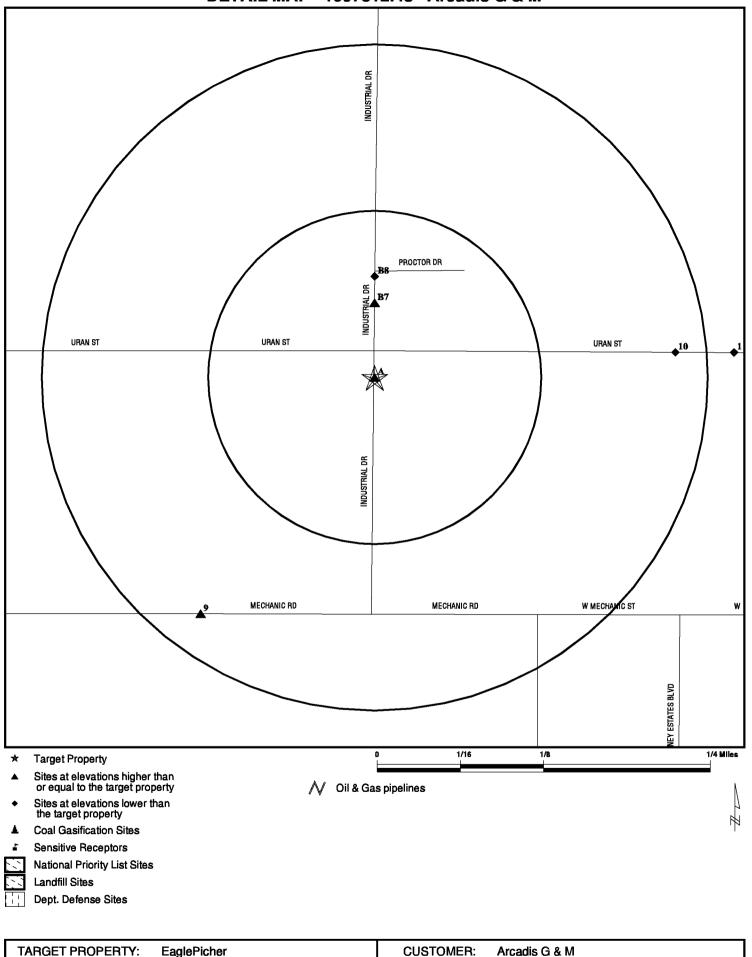
# OVERVIEW MAP - 1097812.4s - Arcadis G & M



EaglePicher **TARGET PROPERTY: CUSTOMER:** Arcadis G & M ADDRESS: 221 Industrial Drive CONTACT: Dawn Sharvin CITY/STATE/ZIP: Hillsdale MI 49242 INQUIRY#: LAT/LONG: 41.9372 / 84.6536

1097812.4s December 12, 2003 2:23 pm DATE:

# **DETAIL MAP - 1097812.4s - Arcadis G & M**



ADDRESS: CITY/STATE/ZIP: LAT/LONG: EaglePicher 221 Industrial Drive Hillsdale MI 49242 41.9372 / 84.6536 CUSTOMER: Arcadis G & M CONTACT: Dawn Sharvin 1097812.4s

DATE: December 12, 2003 2:23 pm

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARI	2							
NPL Proposed NPL CERCLIS CERC-NFRAP CORRACTS RCRIS-TSD RCRIS Lg. Quan. Gen. RCRIS Sm. Quan. Gen. ERNS	X	1.000 1.000 0.500 0.250 1.000 0.500 0.250 0.250 TP	0 0 0 0 0 1 1 NR	0 0 0 0 0 0 1 NR	0 0 0 NR 0 0 NR NR NR NR	0 0 NR NR 0 NR NR NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 1 2
STATE ASTM STANDARD								
State Haz. Waste State Landfill LUST UST BEA HIST LF INDIAN UST	X X X	1.000 0.500 0.500 0.250 0.500 0.500 0.250	0 0 0 0 0	0 0 1 0 0	0 0 2 NR 0 0 NR	O NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 2 1 0 0
FEDERAL ASTM SUPPLEME	ENTAL							
CONSENT ROD Delisted NPL FINDS HMIRS MLTS MINES NPL Liens PADS US BROWNFIELDS DOD RAATS TRIS TSCA SSTS FTTS	X	1.000 1.000 1.000 TP TP TP 0.250 TP TP 0.500 1.000 TP TP TP TP	0 0 0 RR RR O RR O O RR RR RR O RR RR RR RR R	0 0 0 NR NR NR O R NR NR NR O R NR N	0 0 0 NR	0 0 0 R R R R R R R R R R R R R R R R R	NR NR NR NR NR NR NR NR NR NR NR NR NR N	0 0 0 0 0 0 0 0 0
STATE OR LOCAL ASTM SL	JPPLEMENTAL	=						
AST DEL SHWS PEAS	Х	TP 1.000 TP	NR 0 NR	NR 0 NR	NR 1 NR	NR 0 NR	NR NR NR	0 1 0
EDR PROPRIETARY HISTOR	RICAL DATABA	ASES						
Coal Gas		1.000	0	0	0	0	NR	0

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	<u>&gt; 1</u>	Total Plotted
BROWNFIELDS DATABAS	<u>ES</u>							
US BROWNFIELDS		0.500	0	0	0	NR	NR	0

### NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS

Direction Distance Distance (ft.)

EDR ID Number Elevation Site Database(s) **EPA ID Number** 

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

Α1 DΠ UST U002301331 LUST N/A

221 INDUSTRIAL DR Target Property HILLSDALE, MI 49242

Site 1 of 6 in cluster A

Actual: 1146 ft.

LUST:

Facility ID: 00006231 Release Number: C-1173-85 Release Date: Jan 10 1980

Facility Status: Open

Jackson District Office District:

Closed Date: Not reported Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381 Contact : MARLYN MOON Facility Phone: (517) 439-0547

Facility ID: 00006231 Release Number: C-0338-95 Release Date: Mar 23 1995

Facility Status: Open

Jackson District Office District:

Closed Date: Not reported Owner Contact: Not reported

Hillsdale Tool Mfg Co Owner Name: Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

(517) 439-9381 Owner Phone: Contact : MARLYN MOON Facility Phone: (517) 439-0547

Facility ID: 00006231 Release Number: C-0375-85 Apr 25 1990 Release Date: Facility Status: Open

District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone: (517) 439-9381 Contact: MARLYN MOON Facility Phone: (517) 439-0547

UST:

Facility ID: 00006231

Tank ID:

Owner: Hillsdale Tool Mfg Co Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

D II (Continued)

Owner Address: 135 E South St

Hillsdale, MI 49242

Owner Phone: 517-439-9381

Product: WATER SOLUBLE COOLAN

Capacity: 10000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Galvani ed Steel

Piping Type: Suction: No Valve At Tank

Contact: MARLYN MOON Contact Phone: 517-439-0547

Impressed Device:No

Install Date: Jan 17 1980

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00006231

Tank ID:

Owner Address: Hillsdale Tool Mfg Co
Owner Address: 135 E South St
Hillsdale, MI 49242

Owner Phone: 517-439-9381
Product: Used Oil

Capacity: 6000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Galvani ed Steel

Piping Type: Suction: No Valve At Tank

Contact: MARLYN MOON Contact Phone: 517-439-0547

Impressed Device:No

Install Date: Jan 17 1980

Release Detection:

Tank: Not reported Pipe: Not reported

A2 HILLSDALE TOOL AND RUBBER

Target 215 INDUSTRIAL DRIVE Property HILLSDALE, MI 49242

Site 2 of 6 in cluster A

Actual: 1146 ft.

SHWS:

Facility ID: 30000007

Facility Status: Interim Response in progress Source: Industrial Organic Chemicals

Pollutant(s): TCE SAM Score: 34 SAM Score Date: 02/28/1991 Township: **06S** 03W Range: Section: 21 Quarter: ΝE Quarter/Quarter: SE

SHWS

1003883809

N/A

MAP FINDINGS

Map ID Direction Distance Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

\_\_\_\_\_

1003883809

HILLSDALE TOOL AND RUBBER (Continued)

A3 DAISY PARTS #2 DEL SHWS \$105965596
Target 221 INDUSTRIAL DRIVE N/A

Property HILLSDALE, MI 49242

Site 3 of 6 in cluster A

Actual: 1146 ft.

**DELETED HWS:** 

Facility ID: 30000038

Status: Deleted - available documentation does n

A4 HILLSDALE TOOL & MFG. COMPANY INC., DAISY PARTS PLANT 2 RCRIS-SQG 1000292249
Target 221 INDUSTRIAL DRIVE FINDS MID000809871

Target 221 INDUSTRIAL DRIVE Property HILLSDALE, MI 49242

Site 4 of 6 in cluster A

Actual: 1146 ft.

RCRIS:

Owner: EAGLE PICHER INDUSTRIES

(513) 721-7010 EPA ID: MID000809871 Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

A5 EAGLE-PICHER AUTOMOTIVE RUBBER PLT RCRIS-SQG 1000292246
Target 215 INDUSTRIAL DR FINDS MID000809798

Target 215 INDUSTRIAL DR Property HILLSDALE, MI 49242

Site 5 of 6 in cluster A

Actual: 1146 ft.

RCRIS:

Owner: NAME NOT REPORTED

(312) 555-1212

EPA ID: MID000809798
Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Elevation Site Database(s) EPA I

EDR ID Number atabase(s) EPA ID Number

> Date of Compliance

19950214

19950214

1000292246

EAGLE-PICHER AUTOMOTIVE RUBBER PLT (Continued)

Violation Status: Violations exist

Regulation Violated: Not reported

Area of Violation: GENERATOR-OTHER REQUIREMENTS

Date Violation Determined: 08/24/1994 Actual Date Achieved Compliance: 02/14/1995

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 08/24/1994
Penalty Type: Not reported

There are 1 violation record(s) reported at this site:

Evaluation Area of Violation

Other Evaluation GENERATOR-OTHER REQUIREMENTS
Compliance Evaluation Inspection GENERATOR-OTHER REQUIREMENTS

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Biennial Reporting System (BRS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

A6 E P HT DIV TECHNICAL CTR RCRIS-SQG 1000292253
Target 263 INDUSTRIAL DR FINDS MID985569623

Property HILLSDALE, MI 49242

Site 6 of 6 in cluster A

Actual: 1146 ft.

RCRIS

Owner: NAME NOT REPORTED

(312) 555-1212 MID985569623

EPA ID: MID985569623
Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

 B7
 BOSE CORPORATION
 RCRIS-SQG
 1000197008

 North
 260 INDUSTRIAL DR
 FINDS
 MID981534597

North 260 INDUSTRIAL DR < 1/8 HILLSDALE, MI 49242

295 ft.

Site 1 of 2 in cluster B

Relative: Equal

Actual: 1146 ft.

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

Database(s) EPA ID Number

BOSE CORPORATION (Continued)

1000197008

1000151236

MID038708665

RCRIS-LQG

FINDS

RCRIS:

Owner: BOSE AMAR

(312) 555-1212 MID981534597

EPA ID: MID981534597

Contact: NANCY PETERS (508) 879-7330

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

B8 ACT LABORATORIES INCORPORATED North 273 INDUSTRIAL DR.

< 1/8 HILLSDALE, MI 49242

401 ft.

Site 2 of 2 in cluster B

Relative: Lower

Actual:

RCRIS:

Owner: NAME NOT REPORTED

(312) 555-1212

1144 ft. EPA ID: MID038708665

Contact: Not reported

Classification: Large Quantity Generator

TSDF Activities: Not reported

BIENNIAL REPORTS:

Last Biennial Reporting Year: 2001

 Waste
 Quantity (Lbs)
 Waste
 Quantity (Lbs)

 D001
 21100.92
 D008
 34904.09

 D010
 2403.00
 F005
 29816.51

Violation Status: Violations exist

Regulation Violated: Not reported

Area of Violation: GENERATOR-CONTAINER

Date Violation Determined: 03/09/2000 Actual Date Achieved Compliance: 03/21/2002

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/09/2000
Penalty Type: Not reported
Regulation Violated: Not reported

Area of Violation: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

Date Violation Determined: 03/09/2000 Actual Date Achieved Compliance: 03/21/2002

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/09/2000
Penalty Type: Not reported
Regulation Violated: Not reported

Area of Violation: GENERATOR-OTHER REQUIREMENTS

Date Violation Determined: 03/31/1992

MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

ACT LABORATORIES INCORPORATED (Continued)

1000151236

Actual Date Achieved Compliance: 08/28/1992

**Enforcement Action:** WRITTEN INFORMAL

Enforcement Action Date: 03/31/1992 Penalty Type: Not reported Regulation Violated: Not reported

Area of Violation: **GENERATOR-OTHER REQUIREMENTS** 

Date Violation Determined: 03/31/1992 Actual Date Achieved Compliance: 08/28/1992

WRITTEN INFORMAL **Enforcement Action:** 

03/31/1992 Enforcement Action Date: Penalty Type: Not reported Regulation Violated: Not reported

Area of Violation: GENERATOR-OTHER REQUIREMENTS

Date Violation Determined: 03/31/1992 Actual Date Achieved Compliance: 08/28/1992

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/31/1992 Penalty Type: Not reported

There are 5 violation record(s) reported at this site:

		Date of
<u>Evaluation</u>	Area of Violation	Compliance
Compliance Evaluation Inspection	GENERATOR-CONTAINER	20020321
	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	20020321
Other Evaluation	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828
Compliance Evaluation Inspection	GENERATOR-OTHER REQUIREMENTS	19920828
·	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828

### FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS) Biennial Reporting System (BRS) National Emissions Trends (NET)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

**BILCOR PLASTICS INC** U003210954 UST N/A

SW 2250 MECHANIC HILLSDALE, MI 49242 1/8-1/4

1163 ft.

UST: Relative:

Facility ID: 00008340 Higher

Tank ID:

Owner: Rec Creations Inc Actual: 1148 ft. Owner Address: PO Box 765

Hillsdale, MI 49242

Owner Phone: Product: Gasoline Capacity: 1000

Tank Status: Removed from Ground Constr Material: Asphalt Coated or Bare Steel

Galvani ed Steel Piping Material:

MAP FINDINGS

Direction Distance Distance (ft.)

Map ID

EDR ID Number Elevation Database(s) **EPA ID Number** 

BILCOR PLASTICS INC (Continued)

Piping Type: Not reported Contact: Not reported

Contact Phone: Impressed Device:No

Install Date: Mar 28 1966

Release Detection:

Tank: Not reported Pipe: Not reported

RCRIS-SQG 10 **EATON TECHNOLOGIES** 1004724514

East 240 URAN ST

1/8-1/4 HILLSDALE, MI 49242

1197 ft.

Relative: Lower

RCRIS:

EPA ID:

**EATON TECHNOLOGIES** Owner:

> (517) 439-5900 MIR000004598

Actual: 1141 ft.

MARK KALINOWSKI Contact:

(517) 439-5900

Classification: Conditionally Exempt Small Quantity Generator

TSDF Activities: Not reported Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

11 **ESSEX SPECIALTY PROD INC DEL SHWS** 1006897739

East 190 URAN ST

1/4-1/2 HILLSDALE, MI 49242

1429 ft.

**DELETED HWS:** Relative:

Facility ID: 30000003 Lower

Status: Deleted - available documentation does n

Actual: 1138 ft.

U003425809 12 FORMER BILCOR PLASTICS PLANT UST WSW LUST N/A

411 CALETON RD 1/4-1/2 HILLSDALE, MI 43607

2108 ft.

LUST: Relative:

Facility ID: 00001697 Higher Release Number: C-0007-98

Dec 31 1997 Release Date: Actual: 1149 ft. Facility Status: Open

> District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported U003210954

MIR000004598

N/A

**FINDS** 

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)
Elevation Site

Database(s)

EDR ID Number EPA ID Number

U003425809

### FORMER BILCOR PLASTICS PLANT (Continued)

Owner Name : Shannon Prop Owner Address : 1801 Richards Rd

Toledo, OH 43607

Country: USA

Owner Phone : (419) 322-7400 Contact : JON AHLBERG Facility Phone : (419) 322-7400

UST:

Facility ID: 00001697

Tank ID:

Owner: Shannon Prop Owner Address: 1801 Richards Rd

Toledo, OH 43607 419-322-7400

Owner Phone: 419-322-Product: Used Oil Capacity: 5000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 2

Owner: Shannon Prop
Owner Address: 1801 Richards Rd
Toledo, OH 43607

419-322-7400

Owner Phone: 419-32 Product: Diesel Capacity: 10000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 3

Capacity:

Owner: Shannon Prop
Owner Address: 1801 Richards Rd

Toledo, OH 43607

Owner Phone: 419-322-7400 Product: Used Oil

Tank Status: Removed from Ground

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

FORMER BILCOR PLASTICS PLANT (Continued)

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 4

Owner: Shannon Prop
Owner Address: 1801 Richards Rd

Toledo, OH 43607

Owner Phone: 419-322-7400

Product: UNK Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel

Piping Type: Suction: No Valve At Tank

Contact: JON AHLBERG Contact Phone: 419-322-7400 Impressed Device:No

Install Date: Not reported

Release Detection:

Tank: Not reported Pipe: Not reported

13 PLAYFORD DODGE SALES INC

NNE N M99

1/4-1/2 HILLSDALE, MI 49242

2209 ft.

Relative: LUST:

Lower Facility ID: 00008488

Release Number: C-1671-91

Actual: Release Date: Aug 13 1991

1095 ft. Facility Status: Closed

District: Jackson District Office

Closed Date: Dec 12 2001 Owner Contact: Not reported

Owner Name: Playford Dodge Sales Inc

Owner Address: N M99

HILLSDALE, MI 49242

Country: USA

Owner Phone : (517) 437-3394
Contact : DONALD PLAYFORD
Facility Phone : (517) 437-3394

UST:

Facility ID: 00008488

Tank ID:

Owner: Playford Dodge Sales Inc

Owner Address: N M99

HILLSDALE, MI 49242

Owner Phone: 517-437-3394

UST

LUST

U000254358

N/A

U003425809

Map ID MAP FINDINGS Direction

Direction
Distance
Distance (ft.)

 $\begin{array}{ccc} \text{Distance (ft.)} & & \text{EDR ID Number} \\ \text{Elevation} & \text{Site} & & \text{Database(s)} & \text{EPA ID Number} \end{array}$ 

PLAYFORD DODGE SALES INC (Continued)

Product: Used Oil Capacity: 250

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: DONALD PLAYFORD Contact Phone: 517-437-3394

Impressed Device:No

Install Date: Mar 27 1982

Release Detection:

Tank: Not reported Pipe: Not reported

U000254358

#### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HILLSDALE	S105144079	BILCOR PLASTICS	411 CARLTON	49242	SHWS
HILLSDALE		STILLWELL KEN FORD MERCURY INC	M99 HWY		RCRIS-SQG, FINDS
HILLSDALE	1004722600	METALLIST INC	195 W MECHANIC	49242	RCRIS-SQG, FINDS
HILLSDALE	S103594997	KESSERLING, HOWARD 4	PERMIT 25301	49242	SHWS
HILLSDALE	1003871901	HILLSDALE COAL GASIFICATION FAC	WEST STREET	49242	SHWS
JONESVILLE	S103086241	LUCAS LF/JONESVILLE GARBAGE SRVC	220 MAUCK RD	49242	SHWS

# **EPA Waste Codes Addendum**

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D008	LEAD
D010	SELENIUM
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement

of the ASTM standard.

### FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03
Date Made Active at EDR: 12/08/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/03/03

Elapsed ASTM days: 35

Date of Last EDR Contact: 11/03/03

**NPL Site Boundaries** 

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 8

Telephone 215-814-5418 Telephone: 303-312-6774

**EPA Region 4** 

Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Source: EPA Telephone: N/A

Date of Government Version: 10/14/03 Date of Data Arrival at EDR: 12/01/03

Date Made Active at EDR: 12/08/03 Elapsed ASTM days: 7

Database Release Frequency: Semi-Annually Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/24/03

Elapsed ASTM days: 35

Date of Last EDR Contact: 09/24/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 09/24/03 Elapsed ASTM days: 35 Date of Last EDR Contact: 09/24/03

CORRACTS: Corrective Action Report

Source: FPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/17/03 Date of Data Arrival at EDR: 10/01/03

Date Made Active at EDR: 11/11/03 Elapsed ASTM days: 41

Database Release Frequency: Semi-Annually Date of Last EDR Contact: 09/08/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA

Telephone: 800-424-9346

Resource Conservation and Recovery Information System, RCRIS includes selective information on sites which generate. transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03 Date Made Active at EDR: 10/01/03

Database Release Frequency: Varies

Date of Data Arrival at EDR: 09/11/03

Elapsed ASTM days: 20

Date of Last EDR Contact: 11/18/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous

substances

Date of Government Version: 12/31/02 Date Made Active at EDR: 02/03/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 01/27/03

Elapsed ASTM days: 7

Date of Last EDR Contact: 10/27/03

### FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01 Database Release Frequency: Biennially Date of Last EDR Contact: 10/01/03

Date of Next Scheduled EDR Contact: 12/15/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A Database Release Frequency: Varies Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

TC1097812.4s Page GR-2

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 07/09/03 Date of Last EDR Contact: 10/08/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/05/04

DELISTED NPL: National Priority List Deletions

Source: EPA Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the

EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the

NPL where no further response is appropriate.

Date of Government Version: 10/21/03 Date of Last EDR Contact: 11/03/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: 01/05/04

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 08/11/03 Date of Last EDR Contact: 10/23/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

MLTS: Material Licensing Tracking System Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency,

EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 01/05/04

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 08/27/03 Date of Last EDR Contact: 10/01/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 12/29/03

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 02/23/04

Date of Last EDR Contact: 11/21/03

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers

of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/30/03 Date of Last EDR Contact: 11/12/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-648-5920

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 04/01/03 Date of Last EDR Contact: 11/12/03

Date of Next Scheduled EDR Contact: 02/09/04 Database Release Frequency: Semi-Annually

STORMWATER: Storm Water General Permits Source: Environmental Protection Agency

Telephone: 202 564-0746

A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A Database Release Frequency: Quarterly

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 12/15/03

RMP: Risk Management Plans

Source: Environmental Protection Agency

Telephone: 202-564-8600

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A Database Release Frequency: N/A

Date of Last EDR Contact: N/A Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95 Date of Last EDR Contact: 09/08/03

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 12/08/03

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and

land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Annually

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Date of Government Version: 12/31/98 Date of Last EDR Contact: 09/02/03

Database Release Frequency: Every 4 Years Date of Next Scheduled EDR Contact: 12/08/03

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 10/16/03 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices

being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 10/20/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03 Database Release Frequency: Quarterly Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03

#### STATE OF MICHIGAN ASTM STANDARD RECORDS

SHWS: Contaminated Sites

Source: Department of Environmental Quality

Telephone: 517-373-9541

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/18/03 Date Made Active at EDR: 09/17/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 08/25/03 Elapsed ASTM days: 23

Date of Last EDR Contact: 11/24/03

SWF/LF: Solid Waste Facilities Database

Source: Department of Environmental Quality

Telephone: 517-335-4035

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/16/03 Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/23/03 Elapsed ASTM days: 23 Date of Last EDR Contact: 10/27/03

LUST: Leaking Underground Storage Tank Sites Source: Department of Environmental Quality

Telephone: 517-373-8168

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 24 Date of Last EDR Contact: 09/15/03

UST: Underground Storage Tank Facility List Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/07/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 22 Date of Last EDR Contact: 09/15/03

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

Source: DEPT. OF ENVIRONMENTAL QUALITY

Telephone: 517-373-9541

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 09/16/03 Elapsed ASTM days: 23

Date of Last EDR Contact: 09/15/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 5 Telephone: 312-886-6136

Date of Government Version: 11/01/02 Date of Data Arrival at EDR: 11/12/02

Date Made Active at EDR: 12/04/02 Elapsed ASTM days: 22

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

HIST LF: Inactive Solid Waste Facilities
Source: Department of Environmental Quality

Telephone: 517-335-4034

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/97 Date of Data Arrival at EDR: 02/28/03

Date Made Active at EDR: 03/06/03 Elapsed ASTM days: 6

Database Release Frequency: No Update Planned Date of Last EDR Contact: 02/28/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 8 Telephone: 303-312-6137

Date of Government Version: 03/17/03 Date of Data Arrival at EDR: 03/31/03

Date Made Active at EDR: 04/17/03 Elapsed ASTM days: 17

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

### STATE OF MICHIGAN ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Tanks

Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Aboveground Storage Tanks.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 12/15/03

DEL SHWS: Delisted List of Contaminated Sites Source: Department of Environmental Quality

Telephone: 517-373-9541

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for

the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 11/24/03

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 02/23/04

PEAS: Pollution Emergency Alerting System Source: Department of Environmental Quality

Telephone: 517-373-8427

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents,

pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 10/04/03 Date of Last EDR Contact: 09/16/03

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: 01/05/04

#### EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

#### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### STREET AND ADDRESS INFORMATION

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# GEOCHECK\* - PHYSICAL SETTING SOURCE ADDENDUM

#### TARGET PROPERTY ADDRESS

EAGLEPICHER 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242

### TARGET PROPERTY COORDINATES

Latitude (North): 41.937199 - 41° 56' 13.9'' Longitude (West): 84.653603 - 84° 39' 13.0''

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 694525.5 UTM Y (Meters): 4645253.0

Elevation: 1146 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

### GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:

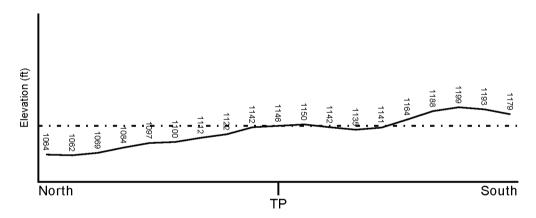
41084-H6 HILLSDALE, MI

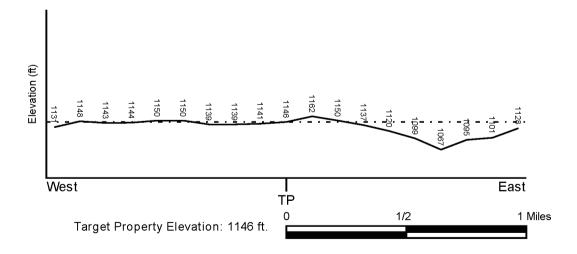
General Topographic Gradient: General NNW

Source:

USGS 7.5 min quad index

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood
Target Property County Electronic Data

HILLSDALE, MI Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
HILLSDALE

NWI Electronic
Data Coverage
Not Available

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

#### AQUIFLOW<sup>•</sup>

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

 MAP ID
 FROM TP
 GROUNDWATER FLOW

 Not Reported
 GROUNDWATER FLOW

<sup>\* ©1996</sup> Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT** 

GEOLOGIC AGE IDENTIFICATION

Era: Paleozoic Category: Stratified Sequence

System: Mississippian

Series: Osagean and Kinderhookian Series
Code: M1 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: HOUGHTON

Soil Surface Texture: muck

Hydrologic Group: Class A/D - Drained/undrained hydrology class of soils that can be

drained and are classified.

Soil Drainage Class: Very poorly. Soils are wet to the surface most of the time. Depth to

water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

#### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand

loam sandy loam

gravelly - sandy loam

Surficial Soil Types: loamy sand

loam sandy loam

gravelly - sandy loam

Shallow Soil Types: sand

sandy loam clay loam silty clay loam cobbly - sandy loam gravelly - sandy clay loam

Deeper Soil Types: fine sand

gravelly - sand stratified loam

sand and gravel

### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u> <u>SEARCH DISTANCE (miles)</u>

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

No Wells Found

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

1 MIWS30000000439 1/4 - 1/2 Mile SSE

STATE OIL/GAS WELL INFORMATION

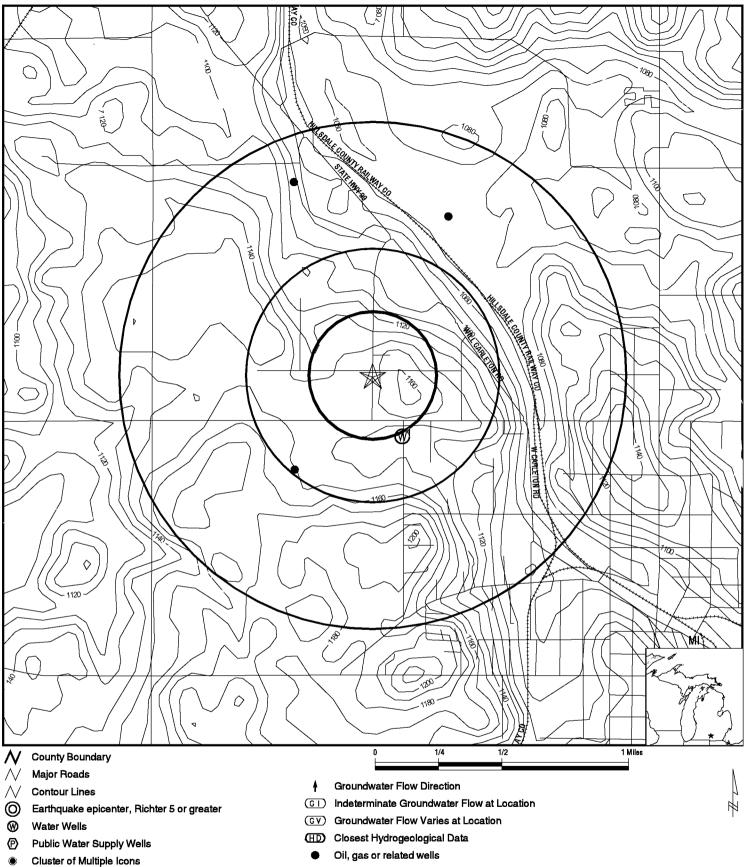
 DISTANCE
 DISTANCE

 FROM TP (Miles)
 FROM TP (Miles)

1/2 - 1 Mile NNW 1/2 - 1 Mile NNE

1/4 - 1/2 Mile SW

#### PHYSICAL SETTING SOURCE MAP - 1097812.4s



EaglePicher **TARGET PROPERTY: CUSTOMER:** Arcadis G & M ADDRESS: 221 Industrial Drive CONTACT: Dawn Sharvin CITY/STATE/ZIP: Hillsdale MI 49242 INQUIRY#: 1097812.4s LAT/LONG:

41.9372 / 84.6536 DATE: December 12, 2003 2:23 pm

### GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 SSE 1/4 - 1/2 Mile Lower			MI WELLS	MIWS3000000439
Wellid: County: Name: Const. Date: Drill method: Welluse: Status: Depth pump: Pump capac: Longitude:	3000000439 Hillsdale Not Reported 05/24/2000 00:00:00 Rotary-mud Not Reported Not Reported 138 20 -84.65134	Permitno: City: Well depth: Well type: Method Remarks: Use Remarks: Status Remarks: Pump time: Latitude:	Not Reported Hillsdale 138 Not Reported Not Reported Not Reported Not Reported 1 41.93371	

#### GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance
Database EDR ID Number

NNW 1/2 - 1 Mile OIL\_GAS 0000003737

API Well No: 21059035260000

Permit No: 3526

Permit Date: 09/03/1936

HILLSDALE Slant: County: BH County: HILLSDALE Township: **FAYETTE** N/S Direction: Tier: 6 S 3 E/W Direction: W Range: 16 10-acre Fraction: NW Section: 40-acre Fraction: NW 160-acre Fraction: SE

40-acre Fraction:NW160-acre Fraction:SLease Name:BECK, JACOBWell No:1

Permitted Owner: BECK JACOB
Surface Owner: Not Reported

Elevation: 1091 Depth: 3502
Formation: TRNTN State Land: NO

Federal Land: NO Well type: Dry Hole Surface X Coord: Well Status: Plugging Approved 1911200.690 163516.400 Surface Y Coord: Bottom X Coord: 1911200.690 Bottom Y Coord: 163516.400 MGR Surface X Coord: 611019.652

MGR Surface X Coord: 611019.652
MGR Surface Y Coord: 156246.028 MGR Bottom X Coord: 611019.652
MGR Bottom Y Coord: 156246.028
Description: Dry Hole

NNE 1/2 - 1 Mile OIL\_GAS

API Well No: 21059040040000
Permit No: 4004

Permit Date: 04/02/1937
Slant: V County:

BH County: HILLSDALE Township: **FAYETTE** Tier: 6 N/S Direction: S Range: 3 E/W Direction: W 15 Section: 10-acre Fraction: SE 40-acre Fraction: NW 160-acre Fraction: SW

Lease Name: BECK, JACOB Well No: 2

Permitted Owner: BECK JACOB
Surface Owner: Not Reported

Elevation:1070Depth:4275Formation:PDCState Land:NO

Federal Land: NO Well type: Dry Hole Well Status: Plugging Approved Surface X Coord: 1914432.860 162778.870 Bottom X Coord: 1914432.860 Surface Y Coord: Bottom Y Coord: 162778.870 MGR Surface X Coord: 612003.281

Bottom Y Coord: 162778.870 MGR Surface X Coord: 612003.281 MGR Surface Y Coord: 156044.193 MGR Bottom X Coord: 612003.281 MGR Bottom Y Coord: 156044.193 Description: Dry Hole

HILLSDALE

0000004237

#### GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction **Distance** Database EDR ID Number

SW 1/4 - 1/2 Mile OIL\_GAS 0000022709

API Well No: 21059217370000

Permit No: 21737 Permit Date: 07/27/1959

Slant: HILLSDALE County: BH County: HILLSDALE Township: HILLSDALE

N/S Direction: Tier: 6 S Range: 3 E/W Direction: W 21 Section: 10-acre Fraction: SW NW SE 40-acre Fraction: 160-acre Fraction: VAN AKEN Well No: 1

Lease Name:

Permitted Owner: HANNERS OIL CO INC Surface Owner: Not Reported

Depth: Elevation: Not Reported Not Reported Formation: Not Reported State Land: NO

Well type: Federal Land: Dry Hole Surface X Coord: 1911193.780 Well Status: Plugging Approved Surface Y Coord: 157521.460 Bottom X Coord: 1911193.780

Bottom Y Coord: 157521.460 MGR Surface X Coord: 611054.649 154422.201 611054.649 MGR Surface Y Coord: MGR Bottom X Coord: 154422.201 MGR Bottom Y Coord: Description: Dry Hole

# GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

#### AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
Random	49242	0	2/21/88	0.6	28.6%		
Random	49242	0	2/3/88	3.6	8.4%		
Random	49242	0	2/26/88	4.1	7.5%		
Random	49242	0	12/2/87	6.0	7.2%		
Random	49242	0	1/8/88	32.8	2.0%		
Geographic	49242	0	3/20/88	7.1	5.0%		

#### Federal EPA Radon Zone for HILLSDALE County: 1

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49242

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported
Basement	9.420 pCi/L	40%	40%	20%

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM) Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS

1:24,000- and 1:25,000-scale topographic quadrangle maps.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

#### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STATE RECORDS

Water Well Data

Source: Department of Environmental Quality, Drinking Water and Radiological Protection Division

Telephone: 517-335-9218

Michigan Oil and Gas Wells

Source: Michigan Department of Natural Resources

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD),

Michigan Department of Natural Resources.

#### RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551 Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

#### **EPA Radon Zones**

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# **ARCADIS**

Appendix C

Aerial Photographs



# The EDR-Aerial Photography Print Service

Eagle Picher 221 Industrial Drive Hillsdale, MI 49242

December 16, 2003

Inguity # 1097812-7

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802

# **Environmental Data Resources, Inc. Aerial Photography Print Service**

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2, page 12.)

#### **Aerial Photographs**

\* Michigan aerials delivered via e-mail and in JPEG format are for <u>One Time Use Only</u>. Further reproductions of these aerial images are prohibited without permission from EDR. \*

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of local aerial photograph collections flown by state and federal agencies for the state of Michigan. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at ten year intervals.

Please call EDR Inc. Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report.

Thank you for your business!

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Inquiry: 1097812.7 Year: 1938 Flyer: AAA Scale: 1"= 555.6'



Inquiry: 1097812.7 Year: 1955

Flyer: CSS



Inquiry: 1097812.7 Year: 1969

Flyer: ASCS

Scale: 1" = 555.6'



Inquiry: 1097812.7 Year: 1978 Flyer: ASCS Scale: 1"= 666.7'



Inquiry: 1097812.7 Year: 1983 Flyer: NHAP Scale: 1"= 690'



Inquiry: 1097812.7 Year: 1997 Flyer: FSA Scale: Unknown

# **ARCADIS**

### Appendix D

Historic Topographic Maps



# The EDR-Historical Topographic Map Report

EaglePicher 221 Industrial Drive Hillsdale, MI 49242

**December 17, 2003** 

Inquiry Number: 1097812-6

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06490

**Nationwide Customer Service** 

Telephone: 1-800-352-0050

Fax: 1-800-231-6802

# Environmental Data Resources, Inc. Historical Topographic Map Report

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable its defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

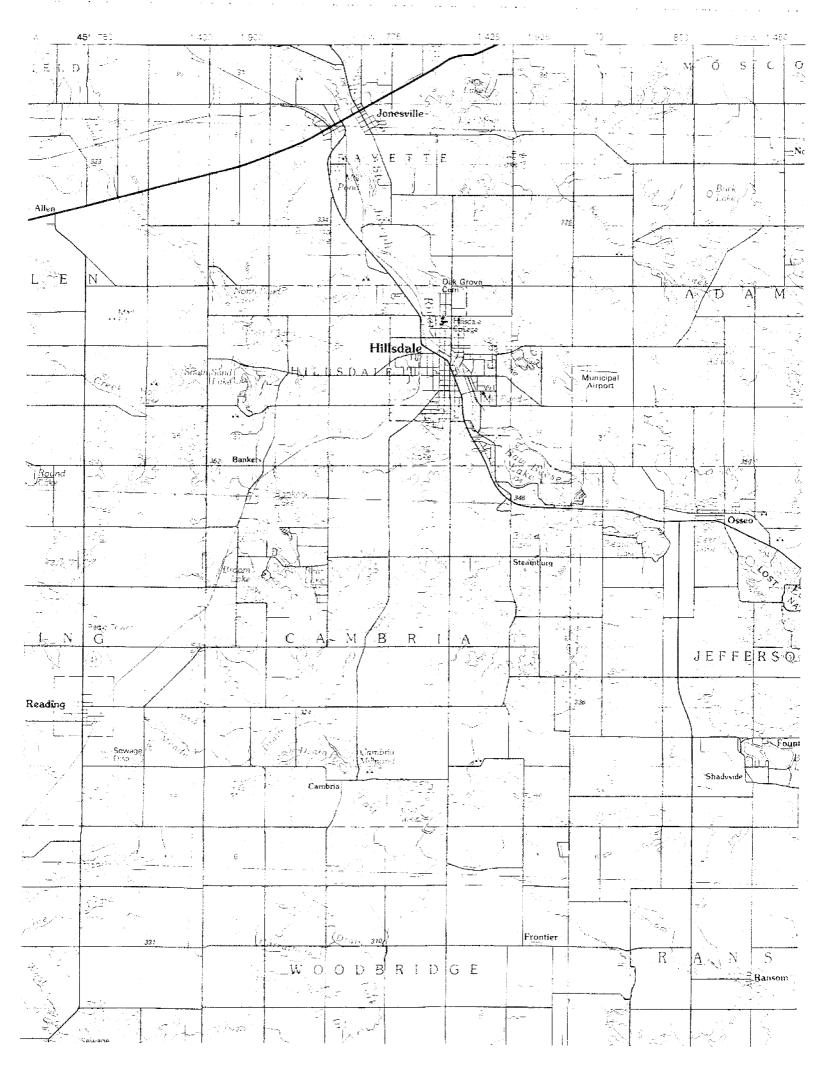
To meet the prior use requirements of ASTM E 1527-00, Section 7.3.2, the following standard historical sources may be used; aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning and use records. ASTM E 1527-00 requires "All abvious uses of the property shall be identified from the present, back to the property's abvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2 page 11.)

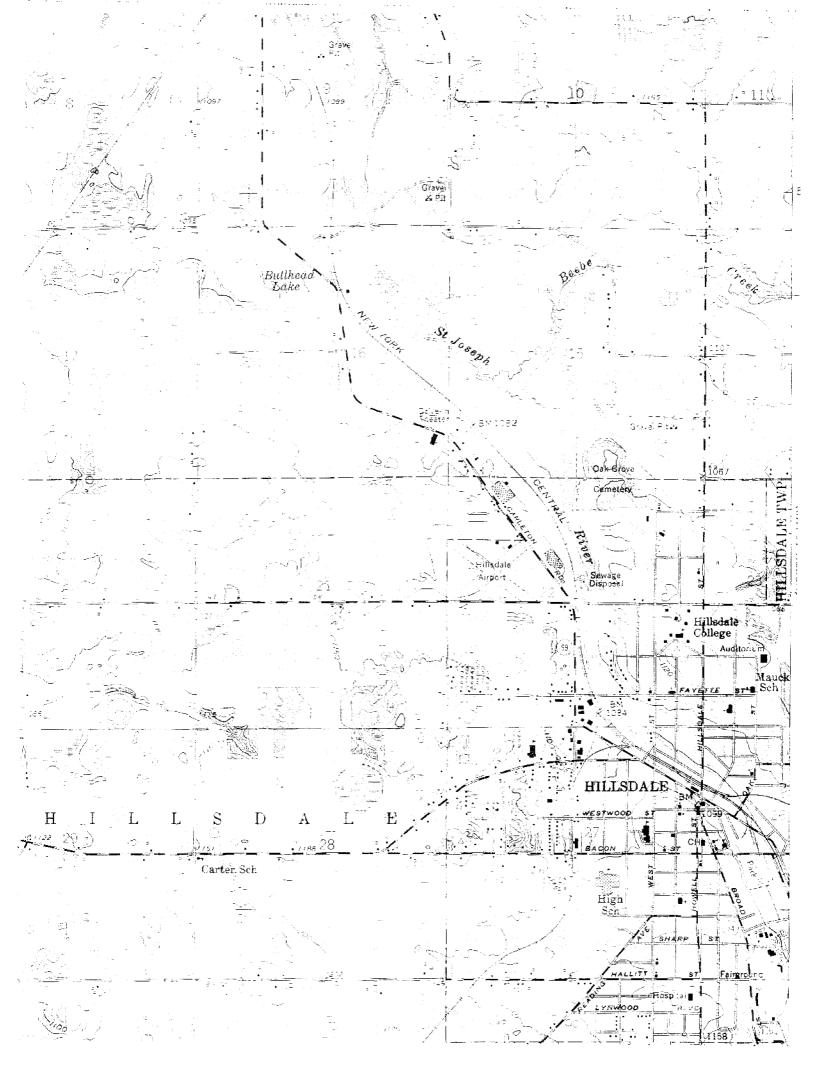
EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

#### Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.





# **ARCADIS**

### **Appendix E**

Asbestos and Lead Building Inspection Report

# ASBESTOS AND LEAD BUILDING INSPECTION REPORT

For the

Eagle Picher Facility 215 Industrial Drive Hillsdale, Michigan 49250

Investigation conducted by

Fibertec Industrial Hygiene Services, Inc. 1914 Holloway Drive Holt, Michigan 48842

Project # 18900-1

Project Date: March 10, 2004

Report Date: March 29, 2004

#### **Contents**

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**Bulk Sample Results** 

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Conclusion

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- B. Copy of Fibertec IHS NVLAP Certification
- C. Bulk Asbestos and Paint Sample Log
- D. Bulk Asbestos and Paint Sample Analytical Report
- E. Room by Room Asbestos and Paint Building Inspection Forms
- F. Photo Log

#### ASBESTOS AND LEAD BUILDING INSPECTION REPORT

For the

Eagle Picher Facility 215 Industrial Drive

Project #18900-1

#### INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by Arcadis G & M, Inc., to perform an asbestos and lead inspection within the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan. The project was discussed with Ms. Dawn Sharvin prior to beginning the fieldwork. The inspection was designed to identify asbestos and lead containing materials within the plant.

The building inspection took place on March 10, 2004. During the inspection, bulk samples of suspect asbestos-containing material (ACM) and suspect lead paint were collected. Collected asbestos bulk samples were submitted to the Fibertec IHS Polarized Light Microscopy (PLM) laboratory for analysis. Paint samples were submitted to the Fibertec, Inc. Analytical Laboratory for analysis.

#### **CERTIFICATION**

John Luna, a State of Michigan accredited asbestos building inspector, conducted the building inspection. Mr. Luna also maintains accreditation as an Asbestos Contractor/Supervisor. A copy of Mr. Luna's asbestos inspector credential appears in Appendix A.

John Walker, a trained polarized light microscopist, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory pursuant to the requirements of Environmental Protection Agency Method EPA/600/R-93/116. This laboratory maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0). A copy of the Fibertec IHS NVLAP accreditation certificate appears in Appendix B.

Jeri Haney, a trained laboratory chemist, analyzed all lead paint samples in the Fibertec, Inc. Analytical Laboratory pursuant to EPA Method 6020. The Fibertec, Inc. Analytical Laboratory is a proficient participant in the NIOSH/AIHA PAT Program (Metals Laboratory).

#### **GENERAL INSPECTION PROCEDURES**

In an effort to identify asbestos-containing material (ACM) and lead-containing paint in all areas of the plant, an extensive inspection procedure was followed. A visual inspection of all rooms in the facility was combined with the collection of an appropriate number and distribution of bulk asbestos samples, including samples of the roof area.

Determination of suspect asbestos-containing material was based on visual examination, bulk sample analysis, material age and professional experience. Specifically, materials similar in color and texture were classified into homogenous areas (*e.g.*, white, drywall). An appropriate number and distribution of samples were collected from material in each homogenous area. All samples were analyzed by polarized light microscopy. When the results of analysis of all samples from a homogenous area indicate no asbestos present (less than or equal to one percent) the homogenous area is considered to be a non-asbestos containing material. When the results of analysis indicate asbestos present (in a quantity greater than one percent) in just one sample of those collected from a single homogenous area, the material in the entire homogenous area must be considered asbestos containing.

Destructive testing (*i.e.*, demolition) was not conducted as part of this asbestos building inspection. As such, quantities of ACM believed to exist in inaccessible areas (like pipe joint insulation and pipe hangers in wall cavities or above the plaster ceilings) have been estimated if necessary. Additionally, some asbestoscontaining material hidden from view may be present (e.g., floor leveling compound beneath floor tile and/or linoleum) and may not have been accounted for as part of this inspection.

Determination of lead paint was based on visual examination and bulk sample analysis. Specifically, a sample of each observed major paint color was collected pursuant to the requirements of ASTM Standard E1729-95 Standard Practice for Field Collection of Dried Paint Samples. All paint samples were submitted to the Fibertec, Inc. Analytical Laboratory, Holt, Michigan for analysis. When results indicate lead levels at or above 0.5 weight percent, the paint is considered lead-based. When the results indicate lead present below 0.5 weight percent and at or above the detection limit, the paint is considered lead-containing. When the results indicate lead present below the method detection limit, the paint is considered non lead-containing.

#### RESULTS OF VISUAL INSPECTION

Based on the inspection, nineteen distinct suspect asbestos-containing materials and seven major paint colors were identified in the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan. Some suspect asbestos-containing materials were sampled a number of times in different locations, drywall, being an example. All suspect asbestos-containing materials and suspect lead paint observed at the time of the inspection are listed in the Room by Room Asbestos and Lead Building Inspection Forms.

#### **BULK SAMPLE RESULTS**

The information gathered from the inspection is included in Appendices C (Bulk Asbestos and Paint Sample Log), D (Bulk Asbestos and Paint Sample Analytical Reports), E (Room by Room Asbestos and Lead Building Inspection Forms) and F (Photo Log).

#### SUMMARY OF ASBESTOS-CONTAINING MATERIALS AND LEAD PAINT

The following materials were found to contain asbestos at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan:

Green linoleum with small squares Roof tar (on metal pan roof)

The following materials were found not to contain asbestos at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan:

**Drywall** 

Drywall joint compound

2' x 4', white lay-in ceiling tile with pin holes and fissures

2' x 2', white, lay-in ceiling tile with pin holes and fissures

4", black cove molding and associated mastic

4", white cove molding and associated mastic

12" x 12", tan marble floor tile and associated mastic

Brown wall mastic (on cinderblock in fan room)

Corkboard and associated mastic

White sink undercoating

Dark green linoleum and associated mastic

Duct expansion joint cloth

Roof tar (on metal roof)

White/brown caulk (mix) outside building caulk (between brick and metal sheet wall)

Clear caulk on outside fan unit

Tan window caulk (men's restroom)

The following material was assumed to contain asbestos at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan:

Fire doors and frames

The following paints were found to be lead-based (0.5% or greater lead by weight) at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan:

Yellow paint

The following paints were found to be lead-containing (less than 0.5% lead by weight) at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan:

White paint Cream paint (on drywall) Red paint Maroon paint Dark brown paint Blue paint

No paints were found to be non lead-containing at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan.

#### CONCLUSION

Undamaged, non-friable asbestos containing linoleum was found at the Eagle Picher Facility, 215 Industrial Drive, Hillsdale, Michigan. Fire doors and frames were assumed to contain asbestos.

All paints were found to contain some (detectable quantity) of lead. One paint (yellow) was found to be lead-based (0.5% or greater lead by weight) paint.

This inspection, to determine the location of asbestos containing building materials and lead paint, was conducted in accordance with the inspection provisions of the Asbestos Hazard Emergency Response Act (AHERA 40 CFR, Part 763), the EPA Asbestos Sampling Bulletin dated September 30, 1994 and current industry standards.

#### RECOMMENDATIONS

Based on the information collected during this building inspection, the following recommendations are offered. These recommendations may have to be adjusted if change of ownership, emergency, or other factors alter the condition, use or planned use of the building.

Perform the following in this case:

- Notify the owner, building maintenance staff and contractors of the presence, quantity, location and condition of the asbestos containing material and lead paint. Ensure that employees and contractors who work in the vicinity of or who may encounter potentially hazardous materials during the course of their work have successfully completed hazard awareness training. Ensure that employees and contractors who work in the vicinity of or who may disturb the asbestos containing materials and/or the lead paint, do so pursuant to the requirements of the Asbestos in Construction Standard 29 CFR 1926.1101 and the Lead in Construction Standard 29 CFR 1926.62.
- Given the undamaged condition of the linoleum in the main hallway, manage it in place.
- In the event of building renovation or demolition, remove asbestos-containing materials from
  areas where they will be disturbed if renovation or demolition occurs. Control the dust
  generated from activities (e.g., demolition), which might generate lead dust and control lead
  exposure to within regulatory limits.

Conduct on-site air monitoring during asbestos removal and lead-containing painted surface
demolition and other lead paint disturbance activities to document compliance with applicable
regulations and to document acceptable air quality following the work. Ensure that employees
have proper training and comply with all the provisions of the Asbestos and Lead in
Construction Standards 29 CFR 1926.1101 and 29 CFR 1926.62, respectively.

#### **COST ESTIMATE**

A cost estimate to remove all identified asbestos-containing material and lead paint is estimated in the following table.

# ESTIMATED COST TO REMOVE ASBESTOS CONTAINING MATERIALS AND LEAD PAINT

Remove green linoleum with small squares	700 s.f.	\$5.00/s.f.	\$3,500.00
Remove fire door and frame	5 ct.	\$300.00/fire door and frame	\$1,500.00
Remove roof tar	100 s.f.	\$20.00/s.f.	\$2,000.00
Air monitoring during asbestos removal	3 days	\$65.00/hour	\$1,560.00

#### **GRAND ESTIMATED TOTAL**

\$8,560.00

The cost estimates are based on the findings of this inspection, current industry prices and current interpretation of the existing regulations. It is assumed that the work is performed by licensed, competent organizations. Estimates include all costs of abatement projects, except replacement. Estimated cost is based on project size, difficulty, access, and power and water being provided by the owner.

John Luna
Michigan Accredited Asbestos Inspector
<u>A4665</u> Card #
Phillip A. Peterson
Vice President

<sup>\*</sup> The cost of lead monitoring is not included in this estimate.

#### **BULK SAMPLE LOG**

DATE:	3/10/	/2004	BUILDING:	Eagle Pic	her, 215 Industrial Drive	e, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
1	149 s.f.	MM	U	F	N	N	1	Main entryway, NW corner.
						N	2	Main hallway, lobby, NE corner.
HA DESCRIF	PTION:				NOTES:			
			le with pin hole	es				
	and fissures	S.						
2	1,240 s.f.	MM	U	F	N	N	3	Hallway, main office area, 2nd office, east side.
	<u> </u>					N	4	Hallway, main office area, main NW office.
HA DESCRIF	PTION:				NOTES:			
			le with pin hole	es				
	and fissures	5.						
		I						
3	2.005 - 5		U	NF	N.	N	5	
3	3,885 s.f.	MM	U	INF	N	N	6	East office entering plant, south wall.  East office entering plant, NE corner.
HA DESCRIF	TION:				NOTES:	N N	7	
HA DESCRIP	PITON.				INOTES.	IN	1	East office entering plant, NW corner.
	Drywall.							
	Diywaii.							
4	1,942 s.f.	MM	U	NF	N	N	8	East office entering plant, NE corner.
	1,0 12 0					N	9	East office entering plant, NW corner.
HA DESCRIF	PTION:				NOTES:	N	10	East office entering plant, SW corner.
								9
	Drywall joint of	compound.						
5	3,230 s.f.	MM	U	NF	N	N	11	Quality Lab, NW corner.
						N	12	2nd office, east side of main lobby.
HA DESCRIF	PTION:				NOTES:			
			n floor tile and		Mastic is also non			
	associated	mastic.			asbestos-containing			
		ı						
_	700 5	<b>.</b>				\ ,	4.5	
6	700 s.f.	MM	U	NF	Y	Y	13	East office entering plant area, SW corner.
LIA DECOR:	L DTION!				NOTEO:	N/A	14	Main hallway, NE office, NW corner.
HA DESCRIF	TION:				NOTES:			
	Organ lines	ma cribba II						
	Green iinoieu	ııı wım smail s	square pattern.					

#### **BULK SAMPLE LOG**

DATE:	3/10/	/2004	BUILDING:	Eagle Picl	ner, 215 Industrial Drive	e, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
7	140 s.f.	MM	U	F	N	N	15	East office entering plant, west wall.
						N	16	East office entering plant, south wall.
HA DESCRIF	PTION:				NOTES:			
	Cork board.							
8	58 s.f.	MM	U	NF	N	N	17	East office entering plant area, NE corner.
						N	18	East office entering plant area, NW corner.
HA DESCRIF	PTION:				NOTES:			
	4", black cove	e molding and	associated ma	astic.	Mastic is also non			
					asbestos-containing			
9	16 s.f.	MM	U	NF	N	N	19	Main hallway, office area, NE corner.
						N	20	Main hallway, office area, SW corner.
HA DESCRIF	PTION:				NOTES:			
	4", white cove	e molding and	associated ma	istic.				
40		l					0.4	
10	300 s.f.	MM	U	NF	N	N	21	South entrance to conference room.
LIA DECODIE	OTION!				NOTEO	N	22	Entrance to south storage area upstairs.
HA DESCRIF	PHON:				NOTES:			
	Danis massa iis							
	Dark green lir	noieum.						
11	1 ct.	MM	U	NF	N	N	23	Lunch room, north wall.
''	'	'*''''		1.41	'`	N	24	Lunch room, north wall.
HA DESCRIF	PTION:				NOTES:	''	<u>-</u> -T	water room, notes from
I II ( BLOOKII					110120.			
	White sink un	idercoating						
12	4 l.f.	MM	U	NF	N	N	25	Men's wash room, south wall, east side window.
						N	26	Men's wash room, south wall, west side window.
HA DESCRIF	TION:				NOTES:			
	Tan window o	caulk.						

#### **BULK SAMPLE LOG**

DATE:	3/10/	12004	BUILDING:	Eagle Pici	ner, 215 industriai Drivi	e, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
13	4 s.f.	MM	U	NF	N	N	27	Fan room, east side, lower.
						N	28	Fan room, east side, upper.
HA DESCRIF	PTION:				NOTES:			
	Duct expansion	on joint cloth.						
14	5 ct.	MM	U	NF	Assumed	Assumed	29	Reserved
							30	Reserved
HA DESCRIF	PTION:	•			NOTES:			
1 # \BL001\					110120			
	Fire door and	l frame						
	The door and	mame.						
					1			
						$\vdash$		
		1			<del> </del>			
45	20 - 5		,,	KIE-	, KI	, I	24	For room north wall west stars
15	20 s.f.	MM	U	NF	N	N N	31	Fan room, north wall, west edge.
						N	32	Fan room, north wall, east side.
HA DESCRIF	PTION:				NOTES:			
	Wall mastic.							
16	500 l.f.	MM	U	NF	N	N	33	SW exterior wall.
						N	34	SE exterior wall.
HA DESCRIF	PTION:				NOTES:			
	White/brown	mix exterior b	uilding caulk.					
17	160 l.f.	MM	U	NF	N	N	35	Exterior fan unit, south side.
	L	<u> </u>	L		<u> </u>	N	36	Exterior fan unit, SE side.
HA DESCRIF	PTION:				NOTES:			
	Clear caulk.							
					1			
18	100 s.f.	MM	U	NF	Υ	Υ	37	NW corner of roof,
		I				N/A	38	East center corner of roof.
HA DESCRIF	PTION:				NOTES:			
, , 52001(11					1			
	Roof tar.							
	ולטטו נמו.							
					1			
					1	$\vdash$		
					<u>I</u>			

#### PAINT SAMPLE LOG

DATE:	3/10/	12004	BUILDING: <u>Eagle Pict</u>	ier, 213 maustriai Drive	e, Hillsdale	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	MATERIAL LEAD-CONTAINING (Y/N)	LEAD DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
1	1,220 s.f.	Paint	Undamaged	Y	Υ	PB-01	Upstairs conference room, NW wall.
HA DESCRIF	PTION:			NOTES:			
	Cream paint of	on dearell					
	Cream paint	on drywaii.					
_							
2	1,485 s.f.	Paint	Undamaged	Y	Y	PB-02	Quality Lab, support beam.
HA DESCRIF	PTION:			NOTES:			
1 1/ B2001 (III				110120.			
	Yellow paint.						
3	5,472 s.f.	Paint	Undamaged	Y	Y	PB-03	Men's wash room, south wall, center, support beam.
Ů	9, 11 2 3.1.		onaamagea		·	1 2 00	mento vidon room, codan vidin, comon, cappore zodini.
HA DESCRIF	PTION:			NOTES:			
	Blue paint.						
4	9,520 s.f.	Paint	Undamaged	Υ	Υ	PB-04	Men's wash room, center, south wall, support beam.
HA DESCRIF	PTION:			NOTES:			
	White paint.						
	vviite pairt.						
				, .	,		
5	108 s.f.	Paint	Undamaged	Y	Υ	PB-05	Entrance to men's wash room, east wall.
HA DESCRIF	PTION:			NOTES:			
	•						
	Red paint.						
6	1,860 s.f.	Paint	Undamaged	Υ	Υ	PB-06	Fan room, NE support beam.
HA DESCRIF	PTION:			NOTES:			
	Maroon paint						

#### PAINT SAMPLE LOG

DAIL.	3/10/	2004	BUILDING: <u>Eagle Pict</u>	iei, 213 iliuustilai Diive	, i illisuale	INSPECTOR.	John Luna
				MATERIAL	LEAD		
	TOTAL	MATERIAL	MATERIAL	LEAD-CONTAINING	DETECTED*	SAMPLE	
HA#	FOOTAGE	TYPE	CONDITION	(Y/N)	(Y/N)	#	SAMPLE LOCATION
				1	(****,		
7	4,340	Paint	Undamaged	Υ	Υ	PB-07	Exterior doors, south side of building.
LIA DECODIE	TION			NOTEO			
HA DESCRIP	TION:			NOTES:			
	Dark brown p	aint.					
HA DESCRIP	PTION:			NOTES:			
I							
HA DESCRIP	PTION:			NOTES:			
HA DESCRIP	TION:			NOTES:			
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# **BULK SAMPLE ANALYTICAL REPORT**

CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

\*No asbestos present indicates less than or equal to 1% asbestos present. Test items were received in an acceptable condition.

FIBERTEC SAMPLE	CLIENT I.D.	DESCRIPTION/	*ASBESTOS PRESENT	ASBESTOS	PERCENT	ТЕСН.	NON-ASBESTOS- CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
1	1	2' X 2', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, MAIN ENTRYWAY, NW CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
2	2	2' X 2', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, MAIN HALLWAY, LOBBY, NE CORNER.	N			JAW	65% CELLULOSE 35% NON-FIBROUS MATTER
3	3	2' X 4', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, HALLWAY, MAIN OFFICE AREA, 2ND OFFICE, EAST SIDE.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
4	4	2' X 4', WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, HALLWAY, MAIN OFFICE AREA, MAIN NW OFFICE.	N			JAW	70% CELLULOSE 30% NON-FIBROUS MATTER
5		GRAY DRYWALL, EAST OFFICE ENTERING PLANT, SOUTH WALL, LAYER 1 OF 2.	N			SDD	98% NON-FIBROUS MATTER 2% CELLULOSE

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382



# **BULK SAMPLE ANALYTICAL REPORT**

CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

\*No asbestos present indicates less than or equal to 1% asbestos present. Test items were received in an acceptable condition.

FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
5	5	BROWN DRYWALL, EAST OFFICE ENTERING PLANT, SOUTH WALL, LAYER 2 OF 2.	N			SDD	97% CELLULOSE 3% NON-FIBROUS MATTER
6	6	GRAY DRYWALL, EAST OFFICE ENTERING PLANT, NE CORNER, LAYER 1 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
6	6	BROWN DRYWALL, EAST OFFICE ENTERING PLANT, NE CORNER, LAYER 2 OF 2.	N			SDD	96% CELLULOSE 4% NON-FIBROUS MATTER
7	7	GRAY DRYWALL, EAST OFFICE ENTERING PLANT, NW CORNER, LAYER 1 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
7	7	BROWN DRYWALL, EAST OFFICE ENTERING PLANT, NW CORNER, LAYER 2 OF 2.	N			SDD	96% CELLULOSE 4% NON-FIBROUS MATTER
8	8	WHITE DRYWALL JOINT COMPOUND, EAST OFFICE ENTERING PLANT, NE CORNER.	N			SDD	98% NON-FIBROUS MATTER 2% CELLULOSE

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382

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# **BULK SAMPLE ANALYTICAL REPORT**

CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

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9	9	WHITE DRYWALL JOINT COMPOUND, EAST OFFICE ENTERING PLANT, NW CORNER.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
10	10	WHITE DRYWALL JOINT COMPOUND, EAST OFFICE ENTERING PLANT, SW CORNER.	N			SDD	98% NON-FIBROUS MATTER 2% CELLULOSE
11	11	12" X 12", TAN MARBLE PATTERN FLOOR TILE, QUALITY LAB, NW CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
11	11	BLACK MASTIC ON 12" X 12", TAN MARBLE PATTERN FLOOR TILE, QUALITY LAB, NW CORNER, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
12	12	12" X 12", TAN MARBLE PATTERN FLOOR TILE, 2ND OFFICE, EAST SIDE OF MAIN LOBBY, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
12		BLACK MASTIC ON 12" X 12", TAN MARBLE PATTERN FLOOR TILE, 2ND OFFICE, EAST SIDE OF MAIN LOBBY, LAYER 2 OF 2.	N			SDD	96% NON-FIBROUS MATTER 4% CELLULOSE
13	13	GREEN LINOLEUM WITH SMALL SQUARE PATTERN, EST OFFICE ENTERING PLANT AREA, SW CORNER.	Y	CHRYSOTILE	20%	SDD	50% CELLULOSE 30% NON-FIBROUS MATTER
15	15	BROWN CORK BOARD AND ASSOCIATED MASTIC, EAST OFFICE ENTERING PLANT, WEST WALL.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
16	16	BROWN CORK BOARD AND ASSOCIATED MASTIC, EAST OFFICE ENTERING PLANT, SOUTH WALL.	N			SDD	98% NON-FIBROUS MATTER 2% CELLULOSE
17	17	4", BLACK COVE MOLDING, EAST OFFICE ENTERING PLANT AREA, NE CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

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17	17	YELLOW MASTIC ON 4", BLACK COVE MOLDING, EAST OFFICE ENTERING PLANT AREA, NE CORNER, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
18	18	4", BLACK COVE MOLDING, EAST OFFICE ENTERING PLANT AREA, NW CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
18	18	YELLOW MASTIC ON 4", BLACK COVE MOLDING, EAST OFFICE ENTERING PLANT AREA, NW CORNER, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
19		4", WHITE COVE MOLDING, MAIN HALLWAY, OFFICE AREA, NE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
19	19	BROWN MASTIC ON 4", WHITE COVE MOLDING, MAIN HALLWAY, OFFICE AREA, NE CORNER, LAYER 2 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE

COMMENTS:

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Page 5 of 8



CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
20	20	4", WHITE COVE MOLDING, MAIN HALLWAY, OFFICE AREA, SW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
20	20	BROWN MASTIC ON 4", WHITE COVE MOLDING, MAIN HALLWAY, OFFICE AREA, SW CORNER, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
21	21	DARK GREEN LINOLEUM, SOUTH ENTRANCE TO CONFERENCE ROOM, LAYER 1 OF 2.	N			SDD	88% NON-FIBROUS MATTER 12% CELLULOSE
21	21	YELLOW MASTIC ON DARK GREEN LINOLEUM, SOUTH ENTRANCE TO CONFERENCE ROOM, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
22	22	DARK GREEN LINOLEUM, ENTRANCE TO SOUTH STORAGE AREA UPSTAIRS, LAYER 1 OF 2.	N			SDD	85% NON-FIBROUS MATTER 15% CELLULOSE

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CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

C.O.C. NO.: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
22	22	YELLOW MASTIC ON DARK GREEN LINOLEUM, ENTRANCE TO SOUTH STORAGE AREA UPSTAIRS, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
23	23	WHITE SINK UNDERCOATING, LUNCH ROOM, NORTH WALL.	N			JAW	92% NON-FIBROUS MATTER 8% CELLULOSE
24	24	WHITE SINK UNDERCOATING, LUNCH ROOM, NORTH WALL.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE
25	25	TAN WINDOW CAULK, MEN'S WASH ROOM, SOUTH WALL, EAST SIDE WINDOW.	N			JAW	100% NON-FIBROUS MATTER
26	26	TAN WINDOW CAULK, MEN'S WASH ROOM, SOUTH WALL, WEST SIDE WINDOW.	N			JAW	100% NON-FIBROUS MATTER
27	27	BROWN DUCT EXPANSION JOINT CLOTH, FAN ROOM, EAST SIDE, LOWER.	N			SDD	97% CELLULOSE 3% NON-FIBROUS MATTER
28	28	BROWN DUCT EXPANSION JOINT CLOTH, FAN ROOM, EAST SIDE, UPPER.	N			SDD	96% CELLULOSE 4% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS G & M

DATE SUBMITTED: 3/10/04

DATE ANALYZED: 3/18/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18900-1

PROJECT:

EAGLE PICHER, 215 INDUSTRIAL DRIVE, HILLSDALE, MI, 36 COLLECTED BULK SAMPLES,

45 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
31	31	BROWN WALL MASTIC, FAN ROOM, NORTH WALL, WEST EDGE.	N			SDD	100% NON-FIBROUS MATTER
32	32	BROWN WALL MASTIC, FAN ROOM, NORTH WALL, EAST SIDE.	N			SDD	100% NON-FIBROUS MATTER
33	33	WHITE/BROWN MIX EXTERIOR BUILDING CAULK, SW EXTERIOR WALL.	N			SDD	100% NON-FIBROUS MATTER
34	34	WHITE/BROWN MIX EXTERIOR BUILDING CAULK, SE EXTERIOR WALL.	N			SDD	100% NON-FIBROUS MATTER
35	35	CLEAR CAULK, EXTERIOR FAN UNIT, SOUTH SIDE.	N			SDD	100% NON-FIBROUS MATTER
36	36	CLEAR CAULK, EXTERIOR FAN UNIT, SE SIDE.	N			SDD	100% NON-FIBROUS MATTER
37	37	BLACK ROOF TAR, NW CORNER OF ROOF.	Y	CHRYSOTILE	6%	JAW	94% NON-FIBROUS MATTER

COMMENT	S:						
DATE:				APPROVE	D SIGNATO	ORY	

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#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
2nd office east of main hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	12' x 18'	216	s.f.
2nd office east of main hallway	Drywall	Undamaged	5	N	2 x 12' x 8' 2 x 18' x 8'	480	s.f.
2nd office east of main hallway	Drywall joint compound	Undamaged	8	N	480' x 50%	240	s.f.
2nd office east of main hallway	12" x 12", tan marble pattern floor tile	Undamaged	11	N	12' x 18'	216	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Fan room	Duct expansion joint cloth	Undamaged	27	N	-	4	s.f.
Fan room	Wall mastic	Undamaged	31	N	-	20	s.f.
Fan room	White paint	Undamaged	PB-04	Y (Lead)	24' x 33'	1,140	s.f.
Fan room	Maroon column paint	Undamaged	PB-06	Y (Lead)	-	930	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Boiler room	Fire door and frame	Undamaged	Unsampled	Assumed	-	2	ct.
Boiler room	White paint	Undamaged	PB-04	Y (Lead)	22' x 22'	880	s.f.
Boiler room	Maroon column paint	Undamaged	PB-06	Y (Lead)	-	930	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
West entrance entryway	2' x 2', white lay-in ceiling tile with pin holes and fissures	Undamaged	1	N	7' x 7'	49	s.f.
West entrance entryway	Drywall	Undamaged	5	N	2 x 7' x 8' 2 x 4' x 8'	176	s.f.
West entrance entryway	Drywall joint compound	Undamaged	8	N	176' x 50%	88	s.f.
West entrance entryway	12" x 12", tan marble pattern floor tile	Undamaged	11	N	7' x 7'	49	s.f.
West entrance entryway	White paint	Undamaged	PB-04	Y (Lead)	11' x 11'	352	s.f.
							400.00

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office area hallway	2' x 2', white lay-in ceiling tile with pin holes and fissures	Undamaged	1	N	5' x 20'	100	s.f.
Office area hallway	Drywall	Undamaged	5	N	2 x 20' x 8'	320	s.f.
Office area hallway	Drywall joint compound	Undamaged	8	N	320' x 50%	160	s.f.
Office area hallway	12" x 12", tan marble pattern floor tile	Undamaged	11	N	5' x 20'	100	s.f.
Office area hallway	4", white cove molding	Undamaged	19	N	2 x 20' x 4"	16	s.f.
Office area hallway	White paint	Undamaged	PB-04	Y (Lead)	5' x 20'	320	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality Lab area	12" x 12", tan marble floor tile	Undamaged	11	N	30' x 82'	2,460	s.f.
Quality Lab area	Blue paint	Undamaged	PB-03	Y (Lead)	30' x 82'	1,792	s.f.
Quality Lab area	White paint	Undamaged	PB-04	Y (Lead)	30' x 82'	1,792	s.f.
Quality Lab area	Yellow paint	Undamaged	PB-02	Y (Lead)	-	110	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Decile Consu			
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	Upper level

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Old telecommunications room	Drywall	Undamaged	5	N	8' x 10' 2 x 8' x 6' 2 x 10' x 6'	296	s.f.
Old telecommunications room	Drywall joint compound	Undamaged	8	Ν	296' x 50%	148	s.f.
Old telecommunications room	Red paint	Undamaged	PB-05	Y (Lead)	-	8	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
_			
Building _	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	Upper level

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
E.I. Conference Room	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	9' x 20'	180	s.f.
E.I. Conference Room	Drywall	Undamaged	5	N	2 x 9' x 8' 2 x 20' x 8'	464	s.f.
E.I. Conference Room	Drywall joint compound	Undamaged	8	N	464' x 50%	232	s.f.
E.I. Conference Room	Dark green linoleum	Undamaged	21	N	12' x 25'	300	s.f.
E.I. Conference Room	Cream paint	Undamaged	PB-01	Y (Lead)	9' x 20'	464	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
- Buildina	Fagle Picher, 215 Industrial Drive, Hilledale	Floor	1et
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	FIOOI	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Men's wash room	Tan window caulk	Undamaged	25	N	-	4	l.f.
Men's wash room	White paint	Undamaged	PB-04	Y (Lead)	22' x 28' (4' of wall)	400	s.f.
Men's wash room	Blue paint	Undamaged	PB-03	Y (Lead)	22' x 28' (4' of wall)	400	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NW office off main entrance	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	12' x 12'	144	s.f.
NW office off main entrance	Drywall	Undamaged	5	N	4 x 12' x 8' 2 x 18' x 8'	384	s.f.
NW office off main entrance	Drywall joint compound	Undamaged	8	N	384' x 50%	192	s.f.
NW office off main entrance	12" x 12", tan marble pattern floor tile	Undamaged	11	N	12' x 12'	144	s.f.
NW office off main entrance	White paint	Undamaged	PB-04	Y (Lead)	12' x 12'	384	s.f.
							400.00

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE office off main entrance hallway	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	10' x 14'	140	s.f.
SE office off main entrance hallway	Drywall	Undamaged	5	N	2 x 10' x 8' 2 x 14' x 8'	384	s.f.
SE office off main entrance hallway	Drywall joint compound	Undamaged	8	N	384' x 50%	192	s.f.
SE office off main entrance hallway	4", black cove molding	Undamaged	17	N	2 x 10' x 4" 2 x 14' x 4"	19	s.f.
SE office off main entrance hallway	Green linoleum with small square pattern	Undamaged	13	Υ	10' x 14'	140	s.f.
SE office off main entrance hallway	12" x 12", tan marble pattern floor tile	Undamaged	11	N	10' x 14'	140	s.f.
SE office off main entrance hallway	White paint	Undamaged	PB-04	Y (Lead)	10' x 14'	384	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
- Buildina	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE office off main hallway	Drywall	Undamaged	5	N	11' x 11' 4 x 11' x 7'	429	s.f.
SE office off main hallway	Drywall joint compound	Undamaged	8	N	429' x 50%	215	s.f.
SE office off main hallway	12" x 12", tan marble pattern floor tile	Undamaged	11	N	11' x 11'	121	s.f.
SE office off main hallway	White paint	Undamaged	PB-04	Y (Lead)	11' x 11' 4 x 11' x 7'	429	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
East office area entrance into plant	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	14' x 14'	196	s.f.
East office area entrance into plant	Drywall	Undamaged	5	N	4 x 14' x 7'	392	s.f.
East office area entrance into plant	Drywall joint compound	Undamaged	8	N	392' x 50%	196	s.f.
East office area entrance into plant	Corkboard wall and associated mastic	Undamaged	15	N	2 x 5' x 14'	140	s.f.
East office area entrance into plant	4", black cove molding	Undamaged	17	N	4 x 14' x 4"	22	s.f.
East office area entrance into plant	Green linoleum with small square pattern	Undamaged	13	Υ	14' x 14'	196	s.f.
East office area entrance into plant	Cream paint	Undamaged	PB-01	Y (Lead)	4 x 14' x 7'	392	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lunch room, east end of plant	2' x 4', white lay-in ceiling tile with pin holes and fissures	Undamaged	3	N	14' x 26'	364	s.f.
Lunch room, east end of plant	Drywall	Undamaged	5	N	2 x 14' x 7' 2 x 26' x 7'	560	s.f.
Lunch room, east end of plant	Drywall joint compound	Undamaged	8	N	560' x 50%	280	s.f.
Lunch room, east end of plant	4", black cove molding	Undamaged	17	N	1 x 26' x 4" 1 x 14' x 4"	16	s.f.
Lunch room, east end of plant	Green linoleum with small square pattern	Undamaged	13	Υ	14' x 26'	364	s.f.
Lunch room, east end of plant	White sink undercoating	Undamaged	23	N	-	1	ct.
Lunch room, east end of plant	Cream paint	Undamaged	PB-01	Y (Lead)	14' x 26'	364	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lunch room, east end of plant	Blue paint	Undamaged	PB-03	Y (Lead)	2 x 14' x 8' 2 x 26' x 8'	640	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
		<u> </u>	
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	Upper level

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Above men's restroom	White paint	Undamaged	PB-04	Y (Lead)	22' x 28'	800	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
- Buildina	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Dye storage area, SW corner of plant	Yellow paint	Undamaged	PB-02	Y (Lead)	-	150	s.f.
Dye storage area, SW corner of plant	Brown paint		PB-07	Y (Lead)	35' x 35'	1,400	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Paint room, NE corner of plant area	Yellow paint	Undamaged	PB-02	Y (Lead)	-	25	s.f.
Paint room, NE corner of plant area	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
- Buildina	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Shipping dock containment area (Main plant area)	White paint	Undamaged	PB-04	Y (Lead)	176' x 2' x 4 154' x 2' x 4	2,640	s.f.
Shipping dock containment area (Main plant area)	Blue paint	Undamaged	PB-03	Y (Lead)	176' x 2' x 4 154' x 2' x 4	2,640	s.f.
Shipping dock containment area	Fire door and frame	Undamaged	Unsampled	Assumed	-	2	ct.
Main plant	Red paint	Undamaged	PB-05	Y (Lead)	-	100	s.f.
Main plant	Yellow paint	Undamaged	PB-02	Y (Lead)	-	1,200	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	1st

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Mold cleaning room	Fire door and frame	Undamaged	Unsampled	Assumed	-	1	ct.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18900-1	Date	3/10/2004
Building	Eagle Picher, 215 Industrial Drive, Hillsdale	Floor	Exterior

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos or Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Roof area	Black roof tar	Undamaged	37	Υ	-	100	s.f.
Roof area	Clear caulk	Undamaged	35	N	-	160	l.f.
Cinder block walls	Brown paint	Undamaged	PB-07	Y (Lead)	115' x 2' x 6 130' x 2' x 6'	2,940	s.f.



Photo 1 – Front of building, facing east, brown paint

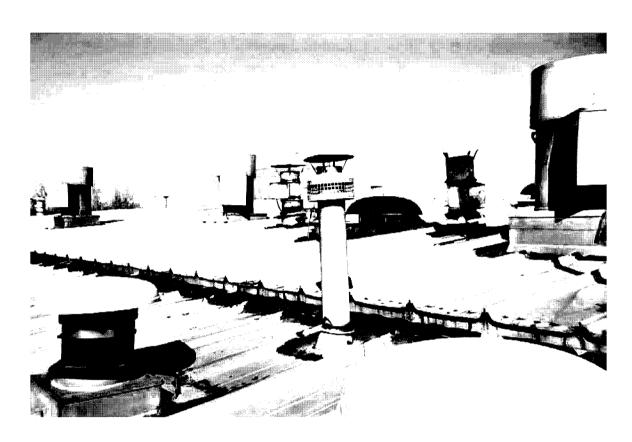


Photo 2 – Roof/roof tar, facing NW

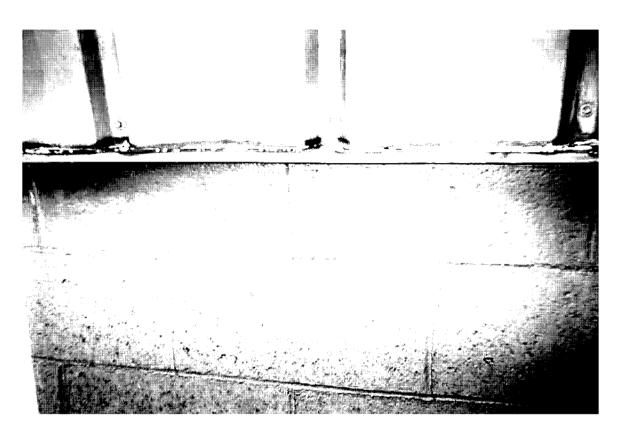


Photo 3 – Building caulk, brown and white mix, brick and siding, south side of building

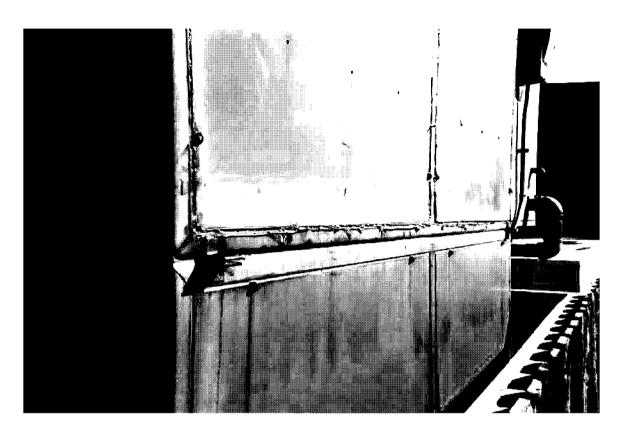


Photo 4 – Clear caulk on orange fan, exterior, south side of building

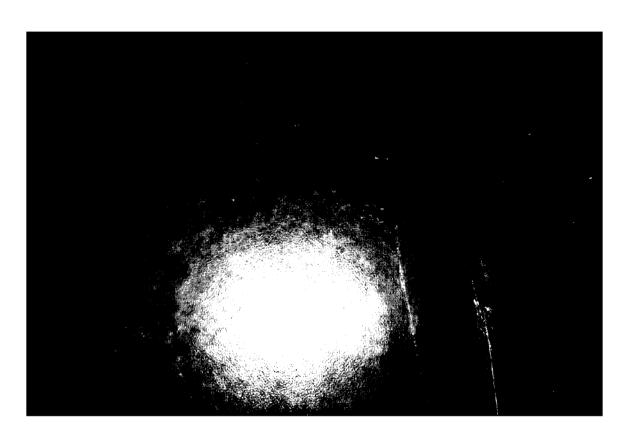


Photo 5 – Dark green linoleum, upstairs conference room

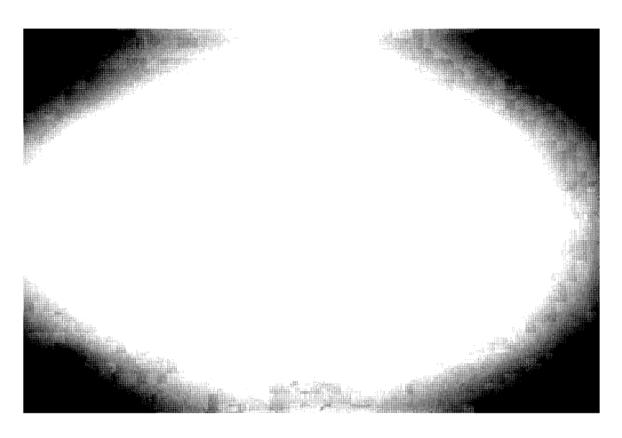


Photo 6 – Drywall with cream paint, upstairs conference room

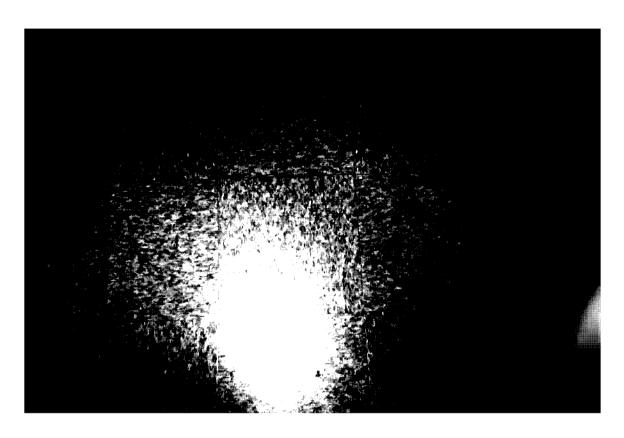


Photo 7 – 12" x 12" tan floor tile, main offices

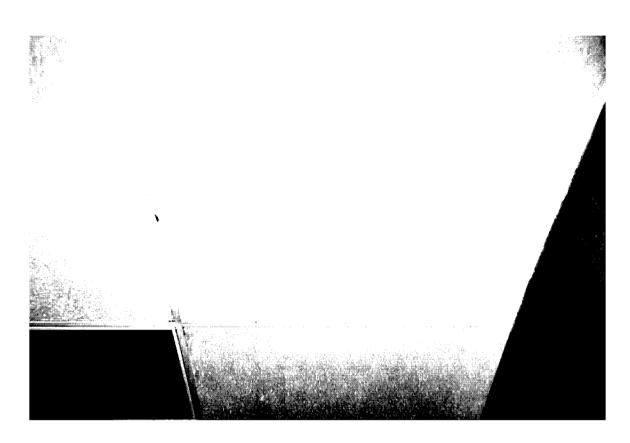


Photo 8-2' x 4' white ceiling tile, main offices

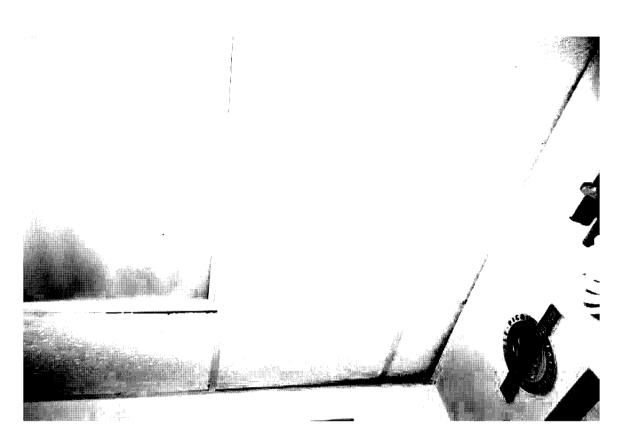


Photo 9 - 2' x 2' white ceiling tile, main entryway



Photo 10 – White cove molding, main hallway

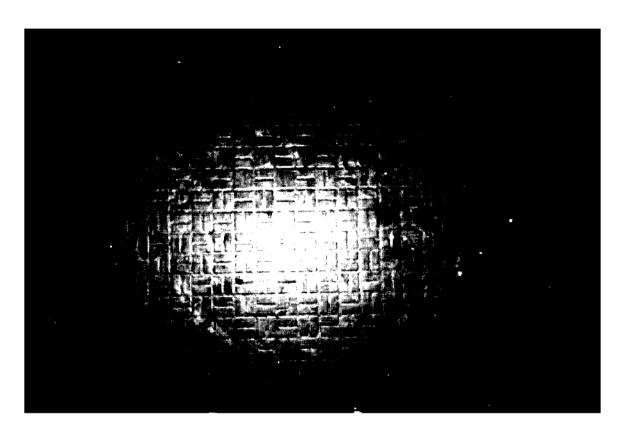


Photo 11 – Green linoleum with small square pattern, main offices



Photo 12 – 4" black cove molding, main offices



Photo 13 - Cork board, main office

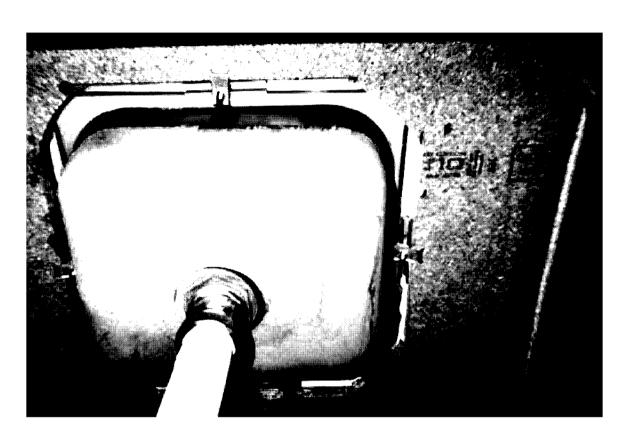


Photo 14 – White sink undercoating, lunch room

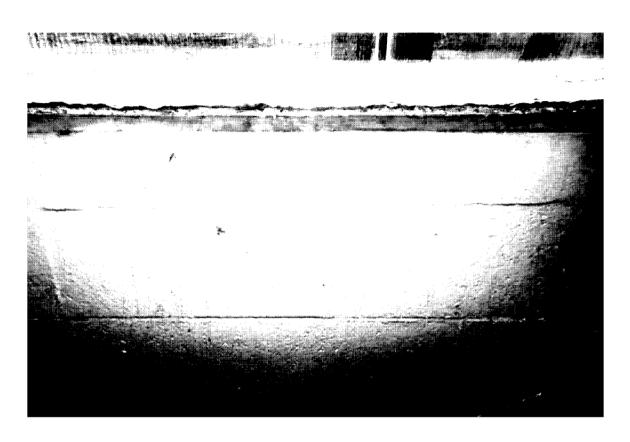


Photo 15 – Window caulk, men's wash room

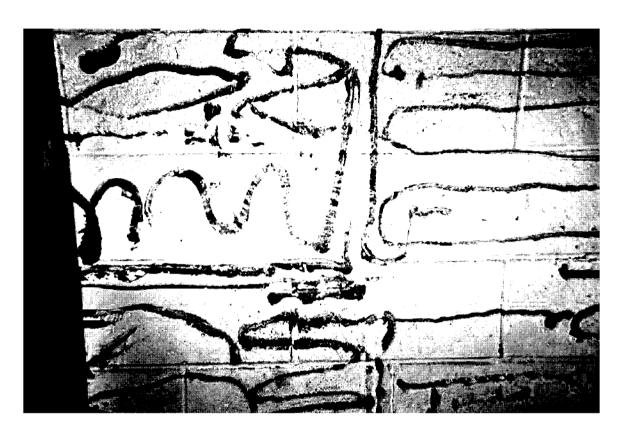


Photo 16 – Wall mastic, fan room

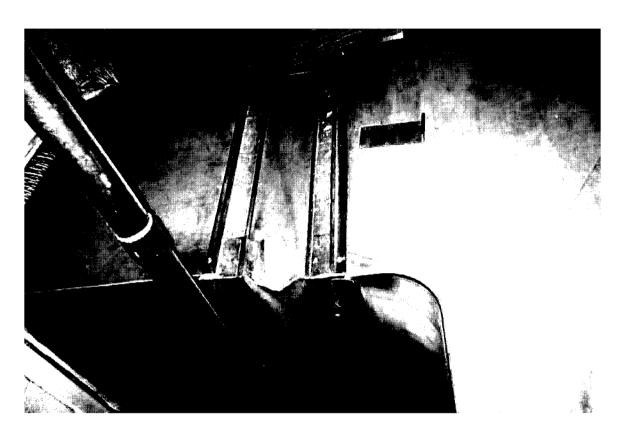


Photo 17 – Duct expansion material, fan room



Photo 18 – Fire door and frame, fan room and boiler room



Photo 19 – Yellow paint, line 2 press controller

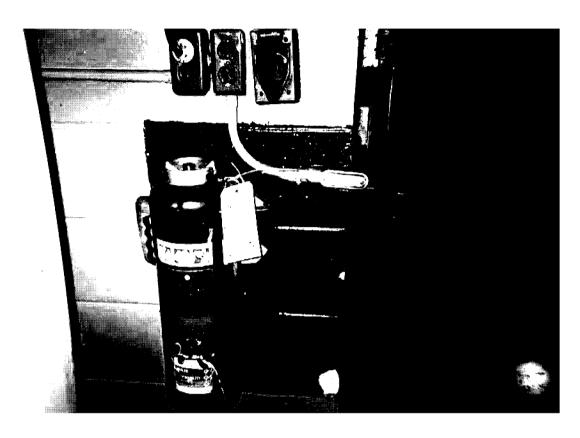


Photo 20 – Red paint, fire extinguisher marking



Photo 21 – Maroon paint, fan room, support beam

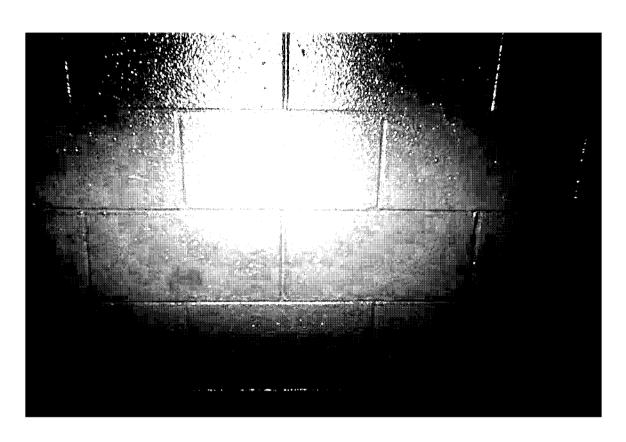


Photo 22 – Blue paint, men's wash room

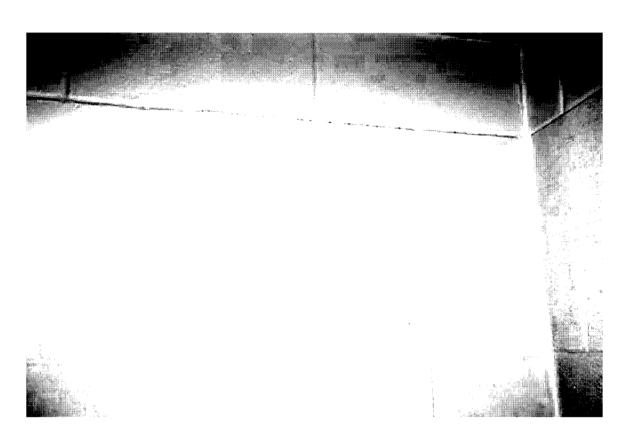


Photo 23 – White paint, men's wash room



March 31, 2004

Fibertec Project # 76856

Project Identification: Eagle Picher 215 Industrial Dr. Hillsdale/ 18900

Ms. Dawn Sharvin Arcadis 25200 Telegraph Road Southfield, MI 48034

Dear Ms. Sharvin:

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples collected at the above referenced project site have been analyzed as requested and the results compiled in the enclosed report. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Telephone: (517) 699-0345

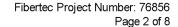
Telephone: (248) 446-5700

Sincerely,

Daryl P. Strandbergh Laboratory Director

DPS/kc

**Enclosures** 





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: CREAM ON DRYWALL (I.E.

INDUSTRIAL DR. HILLSDALE

CONFERENCE) NW WALL
UPSTAIRS CONFERENCE ROOM

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 01

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

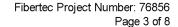
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
0.00040	%WT	0.00024	6020	28351	3/17/2004	3/18/2004	ВЈК
						RESULT ONTS RE METHOD BATCH DATE	RESULT CIVITS RE METHOD BATCH DATE DATE

Telephone: (517) 699-0345 Facsimile: (517) 699-0388 Telephone: (248) 446-5700 Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: YELLOW SUPPORT BEAM

INDUSTRIAL DR. HILLSDALE QUALITY LAB

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 02

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

COMMENTS:

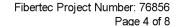
DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT, RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ватсн	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	1.1	%WT	0.00020	6020	28351	3/17/2004	3/18/2004	ВЈК

Facsimile: (517) 699-0388

Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: BLUE SUPPORT BEAM

INDUSTRIAL DR. HILLSDALE CENTER SOUTH WALL MEN'S WASHROOM

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 03

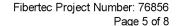
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.034	%WT	0.00018	6020	28351	3/17/2004	3/18/2004	ВЈК





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: WHITE SUPPORT BEAM

INDUSTRIAL DR. HILLSDALE

CENTER SOUTH WALL MEN'S WASHROOM

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 04

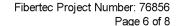
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.031	%WT	0.00020	6020	28351	3/17/2004	3/18/2004	ВЈК





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: RED SPRINKLER/ FIRE EXT.

INDUSTRIAL DR. HILLSDALE

MARKERS EAST WALL OF
ENTRANCE TO MEN'S
WASHROOM (BLUE BACK)

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 05

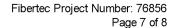
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

 $\mathbf{N}/\mathbf{A} = \text{NOT AVAILABLE OR NOT APPLICABLE}$ 

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.0045	%WT	0.00020	6020	28351	3/17/2004	3/18/2004	ВЈК





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: MAROON (STRUCTURAL SUPPORT

INDUSTRIAL DR. HILLSDALE

FAN ROOM) NE SUPPORT BEAM
FAN ROOM

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 06

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

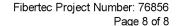
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.0046	%WT	0.00030	6020	28351	3/17/2004	3/18/2004	ВЈК

Telephone: (517) 699-0345 Facsimile: (517) 699-0388 Telephone: (248) 446-5700 Facsimile: (248) 446-5701





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76856 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 215 CLIENT SAMPLE DESCRIPTION: DARK BROWN (OUTSIDE

INDUSTRIAL DR. HILLSDALE

DOORS) OUTSIDE SOUTH SIDE

OF BLDG

PROJECT NUMBER: 18900 CLIENT SAMPLE NUMBER: 07

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42707B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

**N/A** = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.00060	%WT	0.00022	6020	28351	3/17/2004	3/18/2004	ВЈК

Facsimile: (517) 699-0388

Facsimile: (248) 446-5701

Appendix F

**ARCADIS** Resumes

#### Dawn L. Sharvin

Staff Scientist

Ms. Sharvin has more than seven years of experience in the environmental consulting industry working with a variety of industrial, commercial, and regulatory clients. She is currently focused on managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; and negotiating with regulatory agencies. Ms. Sharvin has extensive experience managing and working to solve complex environmental site assessment, remediation, and due diligence problems, and has a proven record of satisfying clients on complicated projects with challenging budget and scheduling constraints.

#### **Database Management**

Serves as Data Manager for several large investigation and remediation projects. Responsibilities include database creation, maintenance, and management of all analytical and field data. Ms. Sharvin creates, writes, and modifies macros, queries, and databases that automate and simplify the comparison of analytical data to state and federal regulatory standards.

# Site Assessment and Remedial Investigations

Ms. Sharvin has managed numerous projects involved with the assessment and remediation of soil and groundwater impacted by various constituents of concern. She has successfully conceived, designed, and implemented investigations and remedial programs at former manufactured gas plant (MGP) sites, landfills, service stations, petroleum terminals, refineries, industrial facilities, and government facilities. Environmental impacts are assessed using a variety of surface and subsurface techniques, including installation of soil borings and

groundwater monitoring wells, soil and groundwater sampling, plume assessment and delineation, determination of aquifer characteristics, and preparation of assessment and remedial investigation reports. Ms. Sharvin has extensive experience in field procedures and data collection programs, including a working knowledge of all types of drilling techniques, field test kits, monitoring well design, aquifer testing, site safety, and groundwater monitoring procedures.

Ms. Sharvin has also conducted numerous site assessment activities, including Phase I and Phase II environmental site assessments (ESAs) (in accordance with *American Society for Testing and Materials* [ASTM] and other state and federal guidance), as well as baseline environmental assessments (BEAs) for residential, commercial, and industrial properties.

#### Railroads

Ms. Sharvin has worked with a variety of railroad clients, including CSX Transportation, Conrail, Long Island Railroad (LIRR), and Metro North

#### Education

M.S./ Environmental Science, Long Island University. 2001.

B.S./ Biology, Lehigh University, 1997.

#### **Professional Certifications**

Hazardous Waste Site Training, OSHA 40-hour Certification

8-hour Refresher Course for Waste Site Personnel

Federal Railroad Association Training

Staff Scientist

Railroad, at a variety of former and active railroad sites across the Midwest and northeast United States. Her railroad experience includes environmental due diligence; site assessments; remedial investigations; feasibility studies; track expansion; remedial designs and remedial actions for roundhouses, tank farms, hump yards, maintenance and repair facilities, sidings, and main lines. Many of these projects have allowed for the redevelopment of abandoned or idle railroad property.

#### **Petroleum Sites**

Worked on a variety of petroleum sites for clients that range from national and multinational firms (i.e., Chevron, and Gulf) to regional (Marathon, Speedway SuperAmerica) and local distributors. Served as Project Manager and field scientist for dozens of leaking underground storage tanks (LUSTs) and aboveground storage tank (AST) projects. Supervised the removal and/or closure of more than 50 USTs and ASTs for bulk petroleum storage and transfer plants, retail distribution centers, fleet maintenance centers, and manufacturing facilities. Designed and implemented UST/AST closures and compliance upgrades, soil and groundwater remedial systems, and LUST emergency response actions for more than 50 sites across the United States. Responsible for preparing budgets, work plans, technical reports, and LUST fund reimbursement claims.

#### **Construction Oversight**

Provided construction oversight on several environmentally sensitive projects. Conducted air monitoring at numerous sites during the excavation of potentially impacted soils. Provided construction oversight of filling, contouring, and construction activities associated with the conversion of a former municipal landfill into a professional golf course.

Responsible for documenting remedial activities using photographs, slides, field sketches, and logbook notes. Served as field contact for communicating information between subcontractors and the client and was also responsible for making on-the-spot changes in the field.

#### **Additional Training**

- United States Environmental Protection Agency (EPA), Region 5, SPCC New Rule Seminar, November 2002
- National Groundwater Association, Comprehensive Groundwater Management Using Microsoft Access, October 1999
- GIS/Solutions, Inc., GIS/Key Basic Training, February 1999
- ESRI, Learning Geographic Information System (GIS) (for ArcView and ArcInfo), October 1998

Mr. Quinnan has more than 14 years professional experience in environmental consulting. Mr. Quinnan has extensive experience in hydrogeology, in-situ remediation, and numerical modeling. He has supervised the design and implementation of over 100 in-situ treatment systems ranging from groundwater pump and treat to enhanced bioremediation for chemicals, including petroleum, solvents, pesticides, and metals. He serves as a company-wide resource in hydrogeology and in-situ remediation methods. He also serves as project manager, lead technical resource in numerical modeling, and as regulatory negotiator.

During the last several years, Mr. Quinnan has directed remedial investigations and remedy selection at Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and state-lead projects through out the country. Prior to joining ARCADIS, he was actively involved in bioremediation technology development and commercialization for recalcitrant compounds including methyl tert-butyl ether (MTBE), ammonium perchlorate, and chlorinated aliphatic hydrocarbons. He has also directed technology demonstrations in CERCLA and through the Department of Defense's Environmental Security Technology Certification Program (ESTCP).

Mr. Quinnan is currently focused on developing site evaluation strategies that complement the company's innovative in-situ remediation techniques and risk capabilities and lead to exit strategies for our clients. His responsibilities include developing strategies for hydrogeologic site evaluations and in-situ remediation projects; managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; supervising numerical modeling projects; and negotiating with regulatory agencies. Mr. Quinnan is also Site Evaluation Department Manager for the Southfield Office.

#### Recent Project Experience

Project Manager and lead hydrogeologist for North Bronson Industrial Area Superfund Site – Operable Unit 1. The project involves the investigation and characterization of several lagoons where metals, petroleum hydrocarbons, chlorinated hydrocarbons, and cyanides wastes were disposed. Pre-Design Studies are currently in progress to assess the

feasibility and technical design requirements associated with the ROD remedy, which involves consolidation of lagoons and hydraulic containment of the groundwater plume. Groundwater treatment is anticipated to be accomplished with an engineered treatment wetland designed to

stabilize the metals and remediate the chlorinated solvents through biologically mediated reductive

dechlorination.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

Education

Postgraduate Studies, Hydrogeology, University of Illinois, Champaign, Illinois

M.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

B.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

Professional
Registrations/Certifications

Certified Hydrogeologist -Wisconsin

Professional Engineer -Wisconsin

Professional Geologist -Wisconsin

OSHA 40-hour Hazardous Materials Training Course following USEPA requirements.

Professional Affiliations

American Society of Civil Engineers

National Ground Water Association

Association of Engineering Geologists

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Ste Evaluation Department
Manager

Lead hydrogeologist for confidential derailment site in Michigan. Project underwent approximately 10 years of pump-and-treat to address 1,1dichloroethene impacts prior to ARCADIS involvement. Completed remedial investigation using Cone Penetrometer Test (CPT) technology for stratigraphic characterization and vertical aquifer profiling. Integrated remedial investigation (RI) data using 3-dimensionsal geostatistics, groundwater flow modeling, and ecological risk assessment to evaluate application of in-situ reductive declorination and monitored natural attenuation (MNA) remedies. Pending the results of a mixing zone determination by the Michigan Department of Environmental Quality (MDEQ), it is anticipated that the final remedy will consist of engineered controls and MNA. rather than continued groundwater pump and treatment, which was estimated at over \$2 million.

Lead Hydrogeologist and project manager for confidential litigation project in Ontario, Canada. Project involves site characterization in complex fractured till setting with DNAPL and development of exit strategy to minimize remediation costs and potential liabilities.

Hydrogeological consultant in on-going litigation project in Massachusetts. Assisting confidential client in developing cost allocation and litigation strategy to limit liabilities associated with MTBE impacts to municipal well system.

Was lead hydrogeologist in technology demonstration at the City of Dover Municipal Landfill Superfund Site, New Hampshire. Project involved field-scale demonstration of sequential anaerobic-aerobic biostimulation to remediate chlorinated aromatic hydrocarbons, aromatic hydrocarbons, and dissolved arsenic.

Was lead hydrogeologist/Project Director in Department of Defense (DOD)/ESTCP technology demonstration involving in-situ biostimulation to remediate MTBE and tertiary butyl alcohol (TBA) at the Port Hueneme, California Naval Engineering Technology Test Site.

Directed Final Design Investigation at Woodlands Township Superfund Sites in New Jersey to develop prototype air sparging and soil-vapor extraction design involving over 300-air sparge wells to treat chlorinated volatiles and aromatic hydrocarbons in area covering approximately 8 acres. Project involved the application of CPT to characterize the stratigraphy in a back-bay coastal environment and development of site conceptual model, which lead to an approved Remedial Design.

Was lead hydrogeologist/numerical modeler at Picillo Farms Superfund remediation design project in Rhode Island. Remedial strategy consists of dewatering and soil vapor extraction to address source area volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and groundwater pumping and treatment to manage migration of dissolved plume.

Was principal designer for an in-situ bioremediation program for free-phase

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

petroleum condensate removal at a natural gas pipeline compression facility in Eastern Colorado. The project involved the application of vapor extraction to aggressively remove the condensate followed by bioventing to address residual soil and groundwater impacts.

Was lead hydrogeologist in successful technology demonstration involving the treatment of chlorinated solvents (TCE, dichloroethene [DCE], and vinyl chloride) using injected nano-scale iron. The project was performed for a Fortune 50 Client in New Jersey.

Was principal hydrogeologist at automotive manufacturing facility RI/Feasibility Study (FS) project in Zanesville, Ohio. Developed and implemented site characterization strategy to define nature and extent of chlorinated solvents (trichloroethene [TCE] and degradation products) in complex bedrock environment.

Was principal hydrogeologist for monitored natural attenuation remedy at closed RCRA impoundment in Huntsville, Alabama. Project involved demonstration of natural attenuation of tetrachloroethene (PCE) and TCE in karst dolomite aquifer, which enabled decommissioning of groundwater pump and treat system.

Was principal hydrogeologist at former paint manufacture facility in New Jersey. Directed the operation and optimization of a multiphase extraction system (MPE) system to treat free-phase toluene in shallow till aquifer and aerobic bioremediation of dissolved aromatic hydrocarbons in underlying fractured bedrock aquifer. Enhanced bioremediation was accomplished using peroxide as a source of oxygen and a network of injection and withdrawal wells.

Conducted numerical groundwater flow simulation of fractured bedrock aquifer conducted to characterize potential for radionuclide migration at a Department of Energy (DOE) site.

Designed and implemented a groundwater pumping and soil-vapor extraction pilot test at a Wisconsin RCRA facility.

Conducted design and permitting of insitu soil and groundwater treatment system using nutrient addition and enhanced biodegradation at a former metal scrap yard in Milwaukee, Wisconsin.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

#### Publications/Presentations

- Steffan, R. J., C. Condee, J. Quinnan, M. Walsh, S. H. Abrams, and J. Flanders. 2000. In situ Application of Propane Sparging for MTBE Bioremediation. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, CA. In Press.
- Turpie, A.E., C. Lizotte, M. Deflaun, J. Quinnan and M. Marley. 2000. *Performance of Field-Scale Sequential Aerobic/Anaerobic In Situ Bioremediation Demonstration*. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, Ca. In Press.
- Quinnan, J.A. Quantifying Uncertainty Associated with the Magnitude and Distribution of Drawdown in an Heterogeneous Leaky Aquifer System, Master's Thesis.
- Massmann, J.W., and J.A. Quinnan, 1989. *Three Dimensional Simulations of Groundwater Pumping Tests at the West Bear Creek Valley Site*, Oak Ridge National Laboratories in-house publication.
- Quinnan, J.A., 1988. *Preliminary Methods of Characterization and Classification of Gulf of Mexico Reservoirs*, Tenneco Eastern Gulf Division in-house publication.

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

Mr. Ferree has more than 18 years professional experience in environmental consulting. His expertise includes hydrogeologic investigations; remedial investigations; underground storage tank (UST) removal projects; soil and groundwater sampling plan preparation; soil and groundwater sampling in accordance with Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidance; surface and down-hole geophysical methods; remediation system design; remedial system installation; slug test and aquifer test performance and analysis; and environmental site assessments.

Mr. Ferree's responsibilities include developing proposals and cost estimates for hydrogeologic site investigations; managing and conducting hydrogeologic investigations at sites of known and unknown environmental contamination; evaluating remedial options; supervising site remediation projects; supervising entry-level geologists; and negotiating remedial strategies with regulatory agencies.

#### Recent Project Experience

Manufacturing Facility

Mr. Ferree was the project manager for the remediation of soil and groundwater at a manufacturing facility in southeastern Michigan. He evaluated the extent of groundwater and soil contamination in a water-table aquifer and supervised the installation of a groundwater extraction and soil-vapor extraction remedial system.

#### Chemical Manufacturing

Mr. Ferree was the senior geologist/field manager for a state-sponsored remedial investigation/feasibility study (RI/FS) to analyze the extent of radiological contamination of a 35-acre site downgradient of an Ohio Department of Energy location. He supervised field sampling activities that included monitoring more than 350 wells and collecting more than 1,000 soil samples.

Automotive Parts Manufacturing

Mr. Ferree was the project manager for a state-led RI/FS to determine the extent of contamination in a fractured limestone aquifer. The project included installing 19 monitoring wells; quarterly sampling; conducting a 72-hour pumping test; and preparing a work plan, quality assurance project plan, sampling plan, and health and safety plan.

#### Chemical Manufacturing

Mr. Ferree was the field manager for two federal RI/FS projects in Ohio, where he conducted all facets of groundwater, soil, sludge, surface-water, and sediment sampling with rigorous quality assurance/quality control under the scrutiny of United States Environmental Protection Agency (USEPA) Region V oversight contractors. He prepared RI reports, attended technical meetings between potentially responsible parties (PRPs)

Education

M.S., Geology, 1994 University of Cincinnati, Cincinnati, Ohio

B.S., Geology, 1984 University of Cincinnati, Cincinnati, Ohio

Professional
Registrations/Certifications

Certified Professional Geologist, American Institute of Professional Geologists, Certification No. 8370

Certified Professional Geologist, State of Indiana, Certification No. 1284

Professional Geologist, State of Kentucky, Certification No. 1575

Hazardous Waste Site Supervisor Training, OSHA 8hour certification

8-hour Refresher Course for Waste Site Personnel

Health and Safety Training for Hazardous Waste Sites, OSHA 40-hour certification

Professional Affiliations

National Ground Water Association

American Institute of Professional Geologists

Environmental Business Practice Manager

and Region V, and prepared the work plan.

#### Chemical Manufacturing Facility

Mr. Ferree supervised a phased subsurface investigation at a former chemical manufacturing site prior to redevelopment. He prepared work plans and RCRA Corrective Measures Implementation (CMI) Plans as part of the redevelopment plan for the site. The redevelopment plan included negotiations with State RCRA regulators to resolve RCRA Corrective Action issues prior to redevelopment. He evaluated the extent of soil and groundwater contamination for metals and volatile organic compounds (VOCs). He prepared the CMI report, CMI Work Plan, and construction specifications for the remediation of the site. Mr. Ferree supervised the installation of a barrier layer system composed of a geofabric and 9 inches of topsoil and groundwater treatment of VOCs using hydrogen peroxide. The CMI was conducted to allow the reuse of the remediated property as a school.

#### Chemical Manufacturing Facility

Mr. Ferree conducted a subsurface investigation at a manufacturing facility in Michigan. He installed monitoring wells in two aquifers to evaluate the extent of groundwater contamination, prepared a site investigation report, and designed and supervised the installation of the remedial system.

#### Phytoremediation

Mr. Ferree has supervised the installation of a phytocap on an abandoned casting sand landfill in southeastern Michigan. The phytocap was designed to reduce the potential for leachate production in the landfill by reducing rainfall infiltration through the landfill cap. Mr. Ferree supervised the development of the installation plan and the planting of more than 7,000 hybrid poplar trees on a 7-acre site. He has supervised the successful operation and maintenance of the phytocap for two years.

Mr. Ferree has supervised the investigation of a former casting sand landfill in Australia. He designed the investigation program to evaluate the use of Eucalyptus (species) trees as a phytocap. He evaluated precipitation data to determine the density of tree planting to minimize infiltration.

Mr. Ferree supervised and designed a phytobarrier at two railroad car axle manufacturing facilities. The phytobarrier was installed as a hydraulic control device to minimize off-site migration of VOC-impacted groundwater. The phytobarriers were composed of hybrid poplars. A deep irrigation and fertilization system was installed as part of the system. He has supervised the successful operation and maintenance of the system.

#### Manufactured Gas Plant Facilities

Mr. Ferree has managed site investigations at numerous manufactured gas plant (MGP) sites in Michigan and Ohio and evaluated the presence of contamination using health risk-based exposure pathway evaluations. He has supervised the preparation of work plans, sampling plans, and interim remedial measures plans. He has attended meetings with state

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

regulators to negotiate remedial options and site closure strategies.

Plating Facility

Mr. Ferree managed the subsurface investigation and remediation activities at a USEPA Region V Superfund site composed of a plating facility in Michigan. He evaluated the extent of soil and groundwater contamination, prepared a site investigation report, and supervised the installation of the selected appropriate remedial technologies for soil and groundwater. The remedial options included installation of a sheet pile wall and asphalt cap for groundwater isolation. Impacted soil on an adjacent property was removed and disposed as hazardous waste at an off-site facility. The property will be closed with MDEQ and USEPA as an industrial property with deed restrictions.

Brass Forging/Manufacturing Facility

Mr. Ferree conducted a subsurface investigation to determine the extent of soil

and groundwater contamination associated with a leaking trichloroethylene storage tank. The investigation included drilling inside a manufacturing facility in a manner that did not disrupt manufacturing operations. Mr. Ferree evaluated options for soil and groundwater remediation.

Commercial/Industrial/Manufacturing Facilities

Mr. Ferree prepared and supervised numerous baseline environmental assessments (BEAs) at industrial/commercial properties that have been identified as sites of contamination. He has prepared Category N, D, and S baseline environmental assessments (BEAs), as required by site redevelopment plans.

Due Diligence

Mr. Ferree has been involved in the completion of due diligence projects associated with electric co-generation facilities, scrap yards, chemical facilities, and commercial properties.

#### Publications/Presentations

Ferree, R.A., R. Kertes, P. Potter, D. Petersen and K. Savage. 1988. *Comparative Petrographic Maturity of River and Beach Sand, and Origin of Quartz Arenites*. Journal of Geological Education 36:79.

URS

January 31, 2006

Ms. Vicki Katko
Michigan Department of Environmental Quality
Environmental Response Division
Jackson District Office
State Office Building
301 E. Louis Glick Hwy.
Jackson, Michigan 49201-1556

Re:

November 2005 Quarterly Sampling Report Hillsdale Tool Division:

Rubber Products/Daisy II Facilities

URS Project No. 21560784

Dear Ms. Katko:

URS is pleased to present this summary letter report documenting the field activities conducted during the twenty-second quarterly sampling event at the Hillsdale Tool Division: Rubber Products/Daisy II (HTR) Facilities in Hillsdale, Michigan. This letter report provides key sampling event information, groundwater elevations, and analytical results.

Field activities for the November 2005 quarterly sampling event were conducted on November 15 through November 17, 2005. Groundwater sampling was performed in accordance with Michigan Department of Environmental Quality (MDEQ) Operational Memorandum No. 2 in addition to the previously established groundwater sampling methodology of bailer sampling. Groundwater samples were collected from all 18 monitoring wells, except monitoring well MW-15s. Monitoring well MW-15s could not be sampled due to insufficient water for sample collection.

Since the previous quarterly sampling event (August 10 to August 12, 2005), the horizontal recovery well operated continuously until October 18, 2005. The horizontal recovery well operated intermittently until repairs were completed on December 22, 2005. The system ran continuously thereafter. The system was not operational during the November 2005 sampling event and a water sample was not obtained.

URS Corporation 34555 West 12 Mile Road Farmington Hills, MI 48331 Tel: 248.553.9449

Fax: 248.553.9571

# URS

November 2005 Quarterly Sampling Report Hillsdale Tool Division Rubber Products/Daisy II Facilities January 31, 2006

Prior to sampling, the water level elevations in the eighteen (18) monitoring wells were gauged using an electronic water level indicator. The groundwater elevations and total monitoring well depths are summarized in Table 1. The groundwater elevations were used to generate a groundwater elevation contour map for the shallow groundwater-bearing unit (Figure 1). Please note that the groundwater elevation for monitoring well MW-18 was not used to create the groundwater potentiometric surface as well measurements consistently do not appear to be representative of the local groundwater elevation level. In addition, no constituents of concern have been detected in MW-18.

The monitoring wells were purged and sampled using a submersible stainless steel bladder pump, or disposable bailer. URS attempted to follow low-flow, minimal drawdown, sampling methodology in all monitoring wells using a submersible stainless steel bladder pump. Monitoring wells where groundwater recharge is sufficient to support low-flow sampling requirements (i.e., minimal drawdown at greater than 50 milliliters/minute) were sampled using a submersible stainless steel bladder pump equipped with an air compressor and control box for flow regulation. The remaining monitoring wells (MW-1S, MW-2S, MW-3S, MW-4S, MW-5S, MW-6S, MW-10S, MW-11S, MW-13, and MW-15S) did not maintain sufficient yield, or recharge, to support low-flow sampling requirements. Therefore, the wells were purged with a bailer until they went dry or at least three well volumes were removed. Groundwater samples were then collected once the well had recharged. The groundwater samples, along with the corresponding chain of custody (COC) form, were shipped via an overnight delivery service to Severn Trent Laboratories (STL) of Ann Arbor, Michigan for analysis of volatile organic compounds (VOCs) using USEPA SW846 Method 8260B.

In addition to the groundwater samples collected, QA/QC samples consisting of two field duplicates and one trip blank were submitted to the laboratory for analysis of VOCs.

The laboratory analytical results and corresponding COC forms for this sampling event are provided in this report and are summarized in Table 2. Please note that the data summary table contains the identified compounds of interest (tetrachloroethene (PCE), trichloroethene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE) and benzene). Compounds such as methyl-tert-butyl-ether (MTBE) or chloroform, which were either not present above cleanup criteria levels, or were not present over a period of months, were not included in the summary table.

# URS

November 2005 Quarterly Sampling Report Hillsdale Tool Division Rubber Products/Daisy II Facilities January 31, 2006

Should you have any questions or comments regarding this summary letter, please do not hesitate to contact me at (248) 994-7445.

Sincerely,

Peter D. Tacy

Senior Project Geologist

cc:

Doug Rommeck - Hillsdale Tool Division

2424 John Daly Road Inkster, MI 48141

Encl:

Table 1

Water Level Measurements

Table 2

VOC Analytical Data Summary-Shallow Groundwater

Figure 1

Groundwater Elevations 8/2005

# TABLE 1 WATER LEVEL MEASUREMENTS BASELINE AND QUARTERLY SAMPLING EVENTS NOVEMBER 2005 HILLSDALE TOOL AND RUBBER, HILLSDALE MICHIGAN

Monitoring Well	Top of Casing Elevation (ft)	Total Well Depth (ft)	22-Mar-00 (Baseline)	13-Jun-00	10-Jul-00	10-Oct-00	18-Oct-01	22-Jan-02	09-Apr-02	24-Jul-02	10-Oct-02	15-Jan-03	22-Apr-03	04-Aug-03
EW-1	1157.82							-					· · · · · · · · · · · · · · · · · · ·	
MW-1S	1151 17	62.4	51 92	50.10	50.09	50.93	50.10	51.78	60,35	61.82	53.00	55.10	52.69	52.15
MW-2S	1147.71	58.7	1099,25 46.70	1101.07 45.22	1101.08 46.20	47.22	1101.07 46.86	1099.39 47.63	1100.82 46.88	1099.35 47.49	1098.17 48.63	1096.07 50.40	1098.48 48.90	1099.02 47.86
Salara Parinterio de Caraca de Mario de Caraca de C	nterresets acceptant	anetismsussusu	1101.01 56.61	1102.49 54.76	1101.51 54.62	1100.49 55.61	1100.85 54.78	1100.08 56.35	1100.83 54.81	1100.22 56.35	1099.08	1097.31	1098.81	1099.85
MW-3S	1165.01	65.6	1098.40	1100.25	1100.39	1099.50	1100.23	1098,66	1100.20	56,35 1098,66	57.51 1097.60	59.01 1096.00	57,05 1097.96	56.48 1098.53
MW-4S	1155.66	64	57.23 1098.43	55.04 1100.62	55.00 1100.66	55.81 1099.85	55.04 1100.62	56.86 1098.80	55.12 1100.54	56.51 1099.15	58.06 1097.60	60.00 1095.66	57.77 1097.89	56,40 1099,26
MW-5S	1148.04	58.7	48.91 1009.13	46.56 1101.48	46,34 1101.70	47.57	46.42	48.54	45.61	48.25	49.70	52.15	49.38	48.95
MW-6S	1147.52	61.2	48.4	46.61	46.5	1100.47 47.26	1101.62 46.64	1099.50 48.21	1102.43 46.72	1090.79 47.91	1098.25 49.31	1095.89 24.57	1098.66 49.05	1099.08 48.50
MW-7S	1159.66	68.1	1099.12 61.41	1100,91 59.5	1101.02 59.37	1100.26 60.28	1100 88 59.35	1099.31 61.17	1100.80 59.55	1099.61 81.11	1098.21 62.25	1122.95 63.95	1098.47 61.87	1099.02 61.21
<u>unining and managing</u>	iden (iden iden iden id	smaugingan	1098.25 60.75	1400.16 58.67	1100:29 58.65	1099,4 59,61	1100:31 58.87	1098.49 60.55	1100.11 58.96	1098.55	1097,41	1095.71	1097.79	1098.45
MW-8S	1158.63	64,8	1097.88	1099.96	1099.98	1099.02	1099.76	1098.08	1099.67	60.41 1098.22	61.73 1096.90	63.40 1095.23	61.47 1097,16	60.75 1097.88
MW-98	1150.93	61.7	52.91 1098.02	57.88 1093.05	56.81 1094.12	51.79 1099.14	51.08 1099.85	62.71 1098.22	51.10 1099.83	52.65 1098.28	53.85 1097.08	55.70 1095,23	53.62 1097.31	56.06 1094.87
MW-10S	1147.6B	58	49,33 1098,35	47.13 1100.55	47.29 1100.39	48.19 1099.49	47.43 1100.25	49.07	46.84	49.03	50.29	52.30	50.05	49.38
MW-115	1154.93	64.8	563	54.35	54:27	55.15	54.18	1098.61 56.09	1100.84 54.41	1098.65 55.91	1097,39 5 <b>7,12</b>	1095.38 49.97	1097.63 56.71	1098.30 56.06
MW-12	1160.3	74,4	1098,63 62.47	1100.58 60.48	1100.66 60.51	1099.78 61.46	1100.75 60.65	1098.84 62.36	1100.52 60.76	1099.02 62.2	1097.81 63.6	1104.96 65.25	1098.22 63.32	1098.87 62.56
ensembininsinsense	ROMERICAN PROPERTY.	i Hahrimmenda	1097.83 63.00	1099.82 60.95	1099.79 60.81	1098.84 61.96	1099.65 61.30	1097.94 62.74	1090.54 81.34	1098.10 62.85	1096.70 64.15	1095.05 65.50	1096,98	1097,74
MW-13	1159.72	80	1096.72	1098.77	1098.91	1097.78	1098.42	1096.98	1098.38	1096.87	1095.57	1094.22	64.00 1095.72	63.03 1096.69
MW-14s	1134,65	44.6	41,82 1092.83	36.25 1098.4	36.22 1098.43	37.26 1097.39	36.74 1097,91	38.25 1096.4	36.74 1097.91	38.11 1096.54	39.49 1095,16	41.20 1093.45	39.17 1095.48	38.68 1095.97
MW-15s	1158.80	74.3	62.90 1095.90	59.49 1099.31	59.31 1099.49	50.25 1098.55	60.05 1098.75	61.65 1097,15	60.09	B1.52	62.80	64.10	62,49	68.50
MW-16	1101.71	15.4	9.24	3.11	3.01	4.06	3.65	5,08	3.47	1097,28 4.85	1096.00 6.41	1094.70 8.20	1096,31 5,12	1090.30 5.57
MW-17	1147.55	57.9	1092.47	1098.60	1098.70	1097.65	1098.06 <b>24.01</b>	1096.63 50	1098.24 48.17	1096.86 49.71	1095.30 51.48	1093.51 53.22	1096.59 51.19	1096.14 50.45
		H44(141)(241)(42)(4					1123.54 54.92	1097,55 62.65	1099.38 61.46	1097.84	1096:07	1094.33	1096,36	1097.10
MW-18	1155.02	91.5				-	1100.1	1092.37	1093,56	62.80 1092.22	64.09 1090.93	65,50 1089,52	63.75 1091.27	63.28 1091.74

# TABLE 1 WATER LEVEL MEASUREMENTS BASELINE AND QUARTERLY SAMPLING EVENTS NOVEMBER 2005 HILLSDALE TOOL AND RUBBER, HILLSDALE MICHIGAN

Monitoring Well	Top of Casing Elevation (ft)	Total Well Dopth (ft)	14-Oct-03	13√Jan-04	13-Apr-04	10-Aug-04	03-Nov-04	26-Jan-05	01-Jun-05	10-Aug-05	15-Nov-05
EW-1	1157.82										
MW-1S	1151.17	62.4	52.31	52.00	51.36	51.16	53.64	50,43	51.45	52.09	54.61
			1098,86	1099,17	1099.81	1100.03	1097.63	1100,74	1099.72	1099.08	1096,66
MW-2S	1147.71	58.7	48.58 1099.13	48.63 1099.08	48.31	47.83	48,94	47.54	47.89	48.71	50.62
inengalementurangan	252000000000000	JOH SHELD HINGGONDS	56.5B	56.37	1099.4 55.84	1099.88 55.66	1098.77	1100.17	1099.82	1099	1097.09
MW-3S	1155 01	65.0	1098.43	1098.64	1099.17	****	57,42	54.87	55,91	56.51	58.5
	THE GREEK THEFT	Superiores (1984)	57.20	56.55	56.10	1099.35	1097.59	1100.14	1099,10	1098.50	\$098.61
MW-4S	1155.66	64	1098.46	1099.11		55.91	58.54	55.22	56,30	57.10	59.53
ahimbelammasassa		ancian menananan	48.95	48.81	1099.56 48.09	1099,75	1097.12	1100.44	1099.36	1098.56	1096.13
MW-5S	1148.04	68.7	1099.09	1099.23		47.91 1100.13	50.42	200000000000000000000000000000000000000	48.21	48.91	51.66
	172611 (58166133) 101664		48.60	48.28	1099.95		1097.62	dilining many	1099.83	1099.13	1096.38
MW-6S	1147.52	61.2	1098.92		47.82	47.65	49.84	46.92	47.91	48.56	51,23
anasi kabupaten da m	THE CONTRACTOR OF THE CONTRACT	DEPRESARES DE REGIE	61,43	1099.24 61.19	1099.70 60.67	1099.87	1097.66	1100.60	1099.61	1098.96	1096.29
MW-7S	1159,66	68.1	1008.23	1098.47		60,54	62.61	59.75	60.9	61.42	63.59
24 (25) (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4 (4	17290017047417034141414141	in the section of the	59.91	60.64	1098.99	1099.12	1097.05	1099.01	1098.76	1098.24	1096.07
MW-8\$	1158.63	64.8			60.04	59.95	62.05	59.06	60.27	60.94	62.98
eskallarsumboometatna	888868888888888	HEREIT ENGLAGE	1098.72 53.05	1097.99 52.8	1098.59	1098.68	1096,58	1099,57	1098,36	1097.69	1095.65
MW-0S	1150.93	61.7	1097.88	52.6 1098.13	52.24	52.10	54,19	61.26	52,49	53.12	55.19
oute the property of the state	11.54 \$1110 11.00 12.00	Sitting of Projectives			1098.69	1098.83	1098,74	1099.07	1098.44	1097.81	1095.74
MW-10S	1147.68	61.7. 58	49.48	49.21	48.63	48.46	50.74	47.73	48.87	49,35	51.67
avekaarka pidalaan	((0.808088899)8598	Compressioners	1098.20	1098.47	1099.05	1099.22	1096.94	1099.95	1098.81	1098.33	1096.01
MW-11\$	1154.93	64.8	56.29	56.04	55.56	55.40	57.60	.54.63	55.82	56.36	58.61
	NUMBER OF STREET	avangling blosse	1098.64	1098.89	1099.37	1090,53	1097.33	1100.3	1099.11	1098 57	1096.32
MW-12	1160.3	74.4	82.75	62.48	61.82	61.73	63.87	60.82	62.07	62,76	64.89
(Bertster Master) budan sessera	augustatievouvestei	enanumaradistis	1097.55	1097.82	1098.48	1098.57	1096.43	1099.48	1098.23	1097.54	1095.41
MW-13	1159.72	80	63.22	62.92	62.05	62.26	64.18	64.91	62.9	63:16	65.08
<u>adomedastas astatument</u>	MINGROUS CONTRACTOR	timestosses institutions	1096.5	1096.8	1097.67	1097,48	1095.54	1094.81	1096.82	1098.56	1094,64
MW-14s	1134.65	44.6	38.48	38.23	37.67	37.61	39.80	36.64	37.99	38.60	40.76
santini sa mangana ang man	:1000:200:00:00:00:00:00:00:00:00:00:00:00	1885 maria de la companya de la comp	1096.17	1096.42	1096.98	1097,04	1094.85	1098.01	1096.66	1096.05	1093.89
MW-15s	1158.80	74.3	61.92	61.70	61.11	61/10	63.02	association (	60.91	6132	62.94
no bestallingstation	100000000000000000000000000000000000000	Patellinasaliga	1096.88	1097.10	1097.69	1007.70	1095,78	sidiga si edilasi d	1097.89	1007.48	1095.86
MW-16	1101.71	15.4	5.31	5.05	3.4	4.34	6.71	3.31	4.79	5.37	7.6
sing Street and proper and the class	2000/2019/01/02/02/02/02/03	Illianima massassa	1096.40	1098,66	1098.31	1097.37	1095.00	1098.40	1096.92	1096.34	1094,11
MW-17	1147,55	57.9	50.38	50.05	49.36	49.2	51.92	48.20	49.73	50.37	52,74
			1097.17	1097.50	1098.19	1098.35	1095.63	1099.35	1097.82	1097.18	1094.81
MW-18	1155.02	91,5	63.09	62.73	62.23	62.27	64.66	61.63	62.76	63.33	65.53
			1091.93	1092.29	1092.79	1092.75	1090.36	1093,39	1092.26	1091,69	1089.49

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# HW-1 Discharge

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
July 2001	ND	78	1.9	1.1	ND	ND	ND
October 2001	ND	53	1.4	ND	ND	ND	ND
January 2002	ND	51	ND	ND	ND	ND	ND
April 2002	ND	34	ND	ND	ND	ND	ND
July 2002	ND	ND	ND	ND	ND	ND	ND
October 2002	ND	24	ND	ND	ND	ND	ND
January 2003	NS	NS	NS	NS	NS	NS	NS
April 2003	ND	25.0	1.1	ND	ND	ND	ND
August 2003	ND	40	ND	ND	ND	ND	ND
October 2003	ND	52	ND	ND	ND	ND	ND
January 2004	ND	50	1.5	ND	ND	ND	ND
April 2004	NS	NS	NS	NS	NS	NS	NS
August 2004	NS	NS	NS	NS	NS	NS	NS
November 2004	NS	NS	NS	NS	NS	NS	NS
January 2005	NS	NS	NS	NS	NS	NS	NS
March 2005	22	130	NR	NR	ND	ND	NR
June 2005	20	49	NR	NR	ND	ND	ND
August 2005	22	43	NR	NR	ND	ND	ND
November 2005	NS	NS	NS	NS	NS	NS	NS

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-1s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	10	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	6	ND	ND	ND	ND	ND
April 2001	ND	1.3	ND	ND	ND	ND	ND
July 2001	ND	2.2	ND	ND	ND	ND	ND
October 2001	ND	1.6	ND	ND	ND	ND	ND
January 2002	ND	16	ND	ND	ND	ND	ND
April 2002	ND	2.1*	ND	ND	ND	ND	1.2
July 2002	ND	1.4	ND	ND	ND	ND	ND
October 2002	ND	1.1	ND	ND	ND	ND	ND
January 2003	ND	1.2	ND	ND	ND	ND	1.7
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	ND	3.2	ND	ND	ND	ND	ND
October 2003	ND	3	ND	ND	ND	ND	ND
January 2004	ND	2.2	ND	ND	ND	ND	ND
April 2004	NR	5	ND	ND	ND	ND	NR
August 2004	ND	2.1	ND	ND	ND	ND	NR
November 2004	ND	5.3	ND	ND	ND	ND	1.1
January 2005	ND	3.9	ND	ND	ND	ND	1.2
June 2005	ND	1.9	ND	ND	ND	ND	ND
August 2005	ND	2	ND	ND	ND	ND	ND
November 2005	ND	9	ND	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-2s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	ND	ND	ND	ND	ND	ND
April 2001	ND	2.3	ND	ND	ND	ND	ND
July 2001	ND	2.7	ND	ND	ND	ND	ND
October 2001	ND	2.4	ND	ND	ND	ND	ND
January 2002	ND	3.5	ND	ND	ND	ND	ND
April 2002	ND	3.3	ND	ND	ND	ND	2.0
July 2002	ND	3.2	ND	ND	ND	ND	5.7
October 2002	ND	3.1	ND	ND	ND	ND	12
January 2003	ND	2.6	ND	ND	ND	ND	5.8
April 2003	ND	2.4	ND	ND	ND	ND	4.8
August 2003	ND	2,9	ND	ND	ND	ND	5.4
October 2003	ND	3.2	ND	ND	ND	ND	8.0
January 2004	ND	3.3	ND	ND	ND	ND	5.3
April 2004	NR	5.9	ND	ND	ND	ND	5.2
August 2004	ND	3.9	ND	ND	ND	ND	5.8
November 2004	ND	3.3	ND	ND	ND	ND	12
January 2005	ND	3.8	ND	ND	ND	ND	6.0
June 2005	ND	2.7	ND	ND	ND	ND	3.4
August 2005	ND	2,1	ND	ND	ND	ND	2.3
November 2005	ND	12	ND	ND	ND	ND	1.3

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-3s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	330	5	ND	ND	ND	ND
July 2000	ND	230	ND	ND	ND	ND	ND
October 2000	ND	380	ND	ND	ND	ND	ND
January 2001	ND	340	10	5	ND	ND	ND
April 2001	ND	300	7.7	3.4	ND	ND	ND
July 2001	ND	130	ND	1.9	ND	ND	ND
October 2001	ND	180	4.2	2.6	ND	ND	ND
January 2002	1.2	260	ND	2.6	ND	ND	5.4
April 2002	1.0	180	3.4	2.3	ND	ND	4.7
July 2002	ND	160	ND	ND	ND	ND	ND
October 2002	1.2	190	ND	2.9	ND	ND	4.6
January 2003	1.4	310	ND	6.4	ND	3.2	3.1
April 2003	1.6	370	1.6	5.9	ND	1.2	1.8
August 2003	ND	310	5.4	ND	ND	ND	ND
October 2003	ND	370	7.2	5.8	ND	ND	ND
January 2004	2	400	5.8	5.1	ND	ND	1.6
April 2004	NR	220	NR	NR	ND	ND	NR
August 2004	ND ND	260	NR	NR	ND	ND	NR
November 2004	ND	310	NR	NR	ND	ND	NR
January 2005	ND	260	NR	NR	ND	ND	ND
June 2005	NR	340	NR	NR	ND	ND	NR
August 2005	ND	220	NR	NR	ND	ND	ND
November 2006	ND	190	NR	6.3	ND	ND	ND

#### Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-4s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	540	7	16	ND	ND	ND
July 2000	ND	460	7	7	ND	ND	ND
October 2000	ND	540	ND	9	ND	ND	ND
January 2001	ND	440	10	10	ND	ND	ND
April 2001	ND	570	9.2	8.6	ND	ND	ND
July 2001	1	340	7.2	6.8	ND	ND	ND
October 2001	4.9	630	8.9	9.4	ND	ND	ND
January 2002	ND	450	ND	ND	ND	ND	ND
April 2002	1.4	240	3.3	5.1	ND	ND	ND
July 2002	ND	230	ND	ND	ND	ND	ND
October 2002	ND	340	ND	5.2	ND	ND	ND
January 2003	2.2	480	ND	15	ND	4.4	2.2
April 2003	2.0	390	4.4	10	ND	1.0	1.6
August 2003	6.6	780	9.2	14	ND	2.6	ND
October 2003	5.1	800	9.6	14.0	1.0	1.3	ND
January 2004	3.9	780	6.7	14	1.1	1.1	ND
April 2004	NR	560	NR	NR	ND	ND	ND
August 2004	ND	390	NR	11	ND	ND	ND
November 2004	ND	440	NR	NR	ND	ND	NR
January 2005	ND	420	NR	20	ND	ND	NR
June 2005	NR	640	NR	NR	ND	ND	ND
August 2005	ND	320	NR	13	ND	ND	ND
November 2005	ND	320	NR	17	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-5s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Вепzеле
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	ND	ND	ND	ND	ND	ND
April 2001	ND	ND	ND	ND	ND	ND	ND
July 2001	ND	ND	ND	ND	ND	ND	ND
October 2001	ND	ND	ND	ND	ND	ND	ND
January 2002	NS	NS	NS	NS	ND	ND	NS
April 2002	NS	NS	NS	NS	NS	NS	NS
July 2002	NS	NS	NS	NS	NS	NS	NS
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	NS	NS	NS	NS	NS	NS	NS
April 2003	NS	NS	NS	NS	NS	NS	NS
August 2003	NS	NS	NS	NS	NS	NS	NS
October 2003	ND	1,2	ND	ND	ND	ND	ND
January 2004	NS	NS	NS	NS	NS	NS	NS
April 2004	NS	NS	NS	NS	NS	NS	NS
August 2004	NS	NŞ	NS	NS	NS	NS	NS
November 2004	ND	5.4	ND	ND	ND	ND	ND
November 2005	ND	6.3	ND	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2

VOC Analytical Data Summary- Shallow Groundwater

Hillsdale Tool and Rubber Division

# MW-6s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	ND	ND	ND	ND	ND	ND
April 2001	ND	ND	ND	ND	ND	ND	ND
July 2001	ND	ND	ND	ND	ND	ND	ND
October 2001	ND	1.8	ND	ND	ND	ND	ND
January 2002	NS	NS	NS	NS	ND	ND	NS
April 2002	NS	NS	NS	NS	NS	NS	NS
July 2002	NS	NS	NS	NS	NS	NS	NS
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	NS	NS	NS	NS	NS	NS	NS
April 2003	NS	NS	NS	NS	NS	NS	NS
August 2003	NS	NS	NS	NS	NS	NS	NS
October 2003	ND	2.8	ND	ND	ND	ND	ND
January 2004	NS	NS	NS	NS	NS	NS	NS
April 2004	NS	NS	NS	NS	NS	NS	NS
August 2004	NS	NS	NS	NS	NS	NS	NS
November 2004	ND	1.5	ND	ND	ND	ND	NR
November 2005	ND	3.6	ND	ND	ND	ND	NR

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-7s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	5	ND	ND	ND	ND	ND
July 2000	ND	18	ND	ND	ND	ND	ND
October 2000	ND	8	ND	ND	ND	ND	ND
January 2001	ND	12	ND	ND	ND	ND	ND
April 2001	ND	11	ND	ND	ND	ND	ND
July 2001	ND	5.6	ND	ND	ND	ND	ND
October 2001	ND	4.8	ND	ND	ND	ND	ND
January 2002	ND	16	ND	ND	ND	ND	1.7
April 2002	ND	7.5	ND	ND	ND	ND	ND
July 2002	ND	5.9	ND	ND	ND	ND	ND
October 2002	ND	5.3	ND	ND	ND	ND	ND
January 2003	ND	5.6	ND	ND	ND	ND	ND
April 2003	ND	3.9	ND	ND	ND	ND	ND
August 2003	ND	8.7	ND	ND	ND	ND	ND
October 2003	ND	12	ND	ND	ND	ND	ND
January 2004	ND	13	ND	ND	ND	ND	ND
April 2004	NR	44	NR	ND	ND	ND	NR
August 2004	ND	10	ND	ND	ND	ND	NR
November 2004	ND	8	ND	ND	ND	ND	ND
January 2005	ND	18	NR	ND	ND	ND	NR
June 2005	ND	9.2	ND	ND	ND	ND	ND
August 2005	ND	15	NR	ND	ND	ND	ND
November 2005	ND	25	NR	ND	ND	ND	NR

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-8s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	610	15	ND	ND	ND	ND
July 2000	ND	350	5	ND	ND	ND	ND
October 2000	ND	200	ND	ND	ND	ND	ND
January 2001	ND	760	17	6	ND	ND	ND
April 2001	ND	96	ND	ND	ND	ND	ND
July 2001	ND	57	ND	ND	ND	ND	ND
October 2001	ND	150	2.4	ND	ND	ND	ND
January 2002	ND	200	ND	ND	ND	ND	ND
April 2002	ND	54	ND	ND	ND	ND	ND
July 2002	ND	41	ND	ND	ND	ND	ND
October 2002	2.0	380	ND	3.0	ND	1.6	ND
January 2003	1.4	280	ND	1.5	ND	3.5	ND
April 2003	2.7	600	8.1	3.5	ND	2.7	ND
August 2003	ND	75	ND	ND	ND	ND	ND
October 2003	1.6	290	3.3	ND	ND	ND	ND
January 2004	2.2	350	3.8	ND	1.8	1.2	ND
April 2004	NR	170	NR	ND	ND	ND	ND
August 2004	ND	110	NR	ND	ND	ND	ND
November 2004	ND	490	ND	ND	ND	ND	ND
January 2005	ND	140	NR	ND	ND	ND	NR
June 2005	ND	83	NR	NR	ND	ND I	ND
August 2005	ND	96	NR	NR	ND	ND	ND
November 2005	NR	32	NR	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-9s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	36	ND	ND	ND	ND	ND
July 2000	ND	28	ND	ND	ND	ND	ND
October 2000	ND	32	ND	ND	ND	ND	ND
January 2001	ND	30	ND	ND	ND	ND	ND
April 2001	ND	20	2.4	ND	ND	ND	ND
July 2001	ND	28	ND	ND	ND	ND	ND
October 2001	ND	24	ND	ND	ND	ND	ND
January 2002	ND	34	3.5	ND	ND	ND	1.3
April 2002	ND	22	2.5	ND	ND	ND	1.0
July 2002	ND	24	ND	ND	ND	ND	ND
October 2002	ND	19	ND	ND	ND	ND	ND
January 2003	ND	12	ND	ND	ND	ND	ND
April 2003	ND	19	2.0	ND	ND	ND	ND
August 2003	ND	26	ND	ND	ND	ND	ND
October 2003	ND	25	2.6	ND	ND	ND	ND
January 2004	ND	22	2.7	ND	ND	ND	ND
April 2004	1.2	22	2.1	ND	ND	ND	NR
August 2004	ND	24	2.8	ND	ND	ND	ND
November 2004	ND	23	2.2	ND	ND	ND	ND
January 2005	ND	22	2.9	ND	ND	ND	ND
June 2005	ND	27	2.8	ND	ND	ND	ND
August 2005	ND	28	3.3	ND	ND	ND	ND
November 2005	ND	11	1.1	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-10s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	9	ND	ND	ND	ND	ND
January 2001	ND	6	ND	ND	ND	ND	ND
April 2001	ND	2.5	ND	ND	ND	ND	ND
July 2001	ND	3.3	ND	ND	ND	ND	ND
October 2001	ND	1.4	ND	ND	ND	ND	ND
January 2002	ND	14	ND	ND	ND	ND	ND
April 2002	ND	2.3	ND	ND	ND	ND	ND
July 2002	ND	1.9	ND	ND	ND	ND	ND
October 2002	ND	1.5	ND	ND	ND	ND	ND
January 2003	ND	1.4	ND	ND	ND	ND	ND
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	NS	NS	NS	NS	NS	NS	NS
October 2003	ND	1.5	ND	ND	ND	ND	ND
January 2004	NS	NS	NS	NS	NS	NS	NS
April 2004	NS	NS	NS	NS	NS	NS	NS
August 2004	NS	NS	NS	NS	NS	NS	NS
November 2004	ND	1.1	ND	ND	ND	ND	ND
November 2005	ND	4.6	ND	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-11s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichtoroethane	1,1- Dichloroethene	Benzene
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	ND	ND	ND	ND	ND	ND
April 2001	ND	ND	ND	ND	ND	ND	ND
July 2001	ND	ND	ND	ND	ND	ND	ND
October 2001	ND	ND	ND	ND	ND	ND	ND
January 2002	NS	NS	NS	NS	ND	ND	NS
April 2002	NS	NS	NS	NS	NS	NS	NS
July 2002	NS	NS	NS	NS	NS	NS	NS
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	NS	NS	NS	NS	NS	NS	NS
April 2003	NS	NS	NS	NS	NS	NS	NS
August 2003	NS	NS	NS	NS	NS	NS	NS
October 2003	ND	ND	ND	ND	ND	ND	ND
January 2004	NS	NS	NS	NS	NS	NS	NS
April 2004	NS	NS	NS	NS	NS	NS	NS
August 2004	NS	NS	NS	NS	NS	NS	NS
November 2004	ND	NR	ND	ND	ND	ND	ND
November 2005	ND	4.5	ND	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2

VOC Analytical Data Summary- Shallow Groundwater

Hillsdale Tool and Rubber Division

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	22	ND	ND	ND	ND	ND
July 2000	ND	290	5	ND	ND	ND	ND
October 2000	ND	250	6	ND	ND	ND	ND
January 2001	ND	200	5	ND	ND	ND	ND
April 2001	ND	240	6.2	3	ND	ND	ND
July 2001	ND	260	5.4	3.5	ND	ND	ND
October 2001	ND	200	ND	ND	ND	ND	ND
January 2002	1.1	200	ND	1.9	ND	ND	ND
April 2002	1.2	190	3.0	2.5	ND	ND	ND
July 2002	1.4	160	ND	1.9	ND	ND	ND
October 2002	ND	110	ND	1.1	ND	ND	ND
January 2003	ND	30	ND	ND	ND	ND	ND
April 2003	ND	57	1.2	ND	ND	ND	ND
August 2003	ND	100	2.2	1.4	ND	ND	ND
October 2003	1.2	170	3.4	3.1	ND	ND	ND
January 2004	1,4	130	3.4	2.1	ND	ND	ND
April 2004	NR	140	NR	NR	ND	ND	ND
August 2004	ND	200	NR	NR	ND	ND	ND
November 2004	ND	110	ND	ND	ND	ND	ND
January 2005	ND	240	NR	NR	ND	ND	NR
June 2005	NR	190	NR	NR	ND	ND	ND
August 2005	NR	150	NR	NR	ND	ND	ND
November 2005	NR	54	1.1	NR	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroetheле	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	81	ND	ND	ND	ND	ND
July 2000	ND	33	ND	ND	ND	ND	ND
October 2000	ND	30	ND	ND	ND	ND	ND
January 2001	ND	14	ND	ND	ND	ND	ND
April 2001	ND	48	2.2	ND	ND	ND	ND
July 2001	ND	21	1.1	ND	ND	ND	ND
October 2001	ND	38	1.5	ND	ND	ND	ND
January 2002	ND	47	ND	ND	ND	ND	ND
April 2002	ND	26	ND	ND	ND	ND	ND
July 2002	ND	26	ND	ND	ND	ND	ND
October 2002	ND	29	ND	ND	ND	ND	ND
January 2003	1.3	120	3.9	3.8	ND	ND	ND
April 2003	ND	54	1.7	1 <i>.</i> 6	ND	ND	ND
August 2003	ND	19	ND	ND	ND	ND	ND
October 2003	ND	53	ND	1.1	ND	ND	1.6
January 2004	ND	40	1.9	1.2	ND	ND	ND
April 2004	NR	35	NR	NR	ND	ND	NR
August 2004	ND	40	1.1	NR	ND	ND	NR
November 2004	ND	36	NR	NR	ND	ND	ND
January 2005	ND	25	NR	NR	ND	ND	NR
June 2005	ND	33	1.1	NR	ND	ND	NR
August 2005	NR	32	1.1	NR	ND	ND	ND
November 2005	NR	92	2.7	2.4	NR	NR	NR

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-14s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	37	ND	ND	ND	ND	ND
July 2000	ND	6	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	5	ND	ND	ND	ND	ND
April 2001	ND	1.3	ND	ND	ND	ND	ND
July 2001	ND	ND	ND	ND	ND	ND	ND
October 2001	ND	2.2	ND	ND	ND	ND	ND
January 2002	ND	3.3	ND	ND	ND	ND	ND
April 2002	ND	1.2	ND	ND	ND	ND	ND
July 2002	ND	2.9	ND	ND	ND	ND	ND
October 2002	ND	7.7	ND	ND	ND	ND	ND
January 2003	ND	15	ND	ND	ND	ND	ND
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	ND	ND	ND	ND	ND	ND	ND
October 2003	ND	3.6	ND	ND	ND	ND	ND
January 2004	ND	2.4	1.2	ND	ND	ND	ND
April 2004	NR	2.3	NR	ND	ND	ND	ND
August 2004	ND	1.1	NR	ND	ND	ND	ND
November 2004	ND	9.8	1,3	ND	ND	ND	ND
January 2005	ND	2.6	NR	ND	ND	ND	ND
June 2005	ND	1.4	NR	ND	ND	ND	ND
August 2005	ND	3.3	NR	ND	ND	ND	ND
November 2005	ND	11	1.5	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2
VOC Analytical Data Summary- Shallow Groundwater
Hillsdale Tool and Rubber Division

# MW-15s

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	NS	NS	· NS	NS	NS	NS	NS
July 2000	ND	150	ND	ND	ND	ND	ND
October 2000	ND	6	ND	ND	ND	ND	ND
January 2001	ND	44	ND	ND	ND	ND	ND
April 2001	ND	9.9	ND	ND	ND	ND	ND
July 2001	ND	9.2	ND	ND	ND	ND	ND
October 2001	ND	20	ND	ND	ND	ND	ND
January 2002	ND	24	ND	ND	ND	ND	1.0
April 2002	ND	12	ND	ND	ND	ND	ND
July 2002	ND	8.3	ND	ND	ND	ND	4.2
October 2002	ND	39	ND	ND	ND	ND	3.2
January 2003	ND	46	2.4	ND	ND	1.1	1.6
April 2003	ND	20	ND	ND	ND	ND	ND
August 2003	ND	61	2.7	ND	ND	ND	ND
October 2003	ND	86	ND	ND	ND	ND	ND
January 2004	ND	47	1.8	ND	ND	ND	ND
April 2004	NR	29	NR	ND	ND	ND	NR
August 2004	ND	24	NR	ND	ND	ND	ND
November 2004	ND	1.8	ND	ND	ND	ND	ND
January 2005	NS	NS	NS	NS	NS	NS	NS
June 2005	ND	310	18	ND	ND	NR	ND
August 2005	ND	180	16	ND	ND	NR	ND
November 2005	NS	NS	NS	NS	NS	NS	NS

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2

VOC Analytical Data Summary- Shallow Groundwater

Hillsdale Tool and Rubber Division

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
March 2000	ND	ND	ND	ND	ND	ND	ND
July 2000	ND	ND	ND	ND	ND	ND	ND
October 2000	ND	ND	ND	ND	ND	ND	ND
January 2001	ND	ND	ND	ND	ND	ND	ND
April 2001	ND	9.6	ND	ND	ND	ND	ND
July 2001	ND	ND	ND	ND	ND	ND	ND
October 2001	ND	ND	ND	ND	ND	ND	ND
January 2002	ND	1.0	ND	ND	ND	ND	ND
April 2002	ND	ND	ND	ND	ND	ND	ND
July 2002	ND	ND	ND	ND	ND	ND	ND
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	ND	3.4	ND	ND	ND	ND	ND
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	ND	6.4	ND	ND	ND	ND	ND
October 2003	ND	ND	ND	ND	ND	ND	ND
January 2004	ND	ND	ND	ND	ND	ND	ND
April 2004	ND	2.3	NR	ND	ND	ND	ND
August 2004	ND	ND	NR	ND	ND	ND	ND
November 2004	ND	4.7	ND	ND	ND	ND	ND
January 2005	ND	NR	NR	ND	ND	ND	ND
June 2005	ND	ND	ND	ND	ND	ND	ND
August 2005	ND	ND	NR	ND	ND	ND	ND
November 2005	ND	4.2	NR	ND	ND	ND	ND

# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2

VOC Analytical Data Summary- Shallow Groundwater

Hillsdale Tool and Rubber Division

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
October 2001	ND	ND	ND	ND	ND	ND	ND
January 2002	ND	7.5	ND	ND	ND	ND	ND
April 2002	ND	1.3	ND	ND	ND	ND	ND
July 2002	ND	ND	ND	ND	ND	ND	ND
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	ND	ND	ND	ND	ND	ND	ND
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	ND	ND	ND	ND	ND	ND	1.5
October 2003	ND	ND	ND	ND	ND	ND	ND
January 2004	ND	ND	ND	ND	ND	ND	ND
April 2004	NR	2.1	ND	ND	ND	ND	1.9
August 2004	ND	1.1	ND	ND	ND	ND	NR
November 2004	ND	ND	ND	ND	ND	ND	ND
January 2005	ND	1.6	NR	ND	ND	ND	NR
June 2005	ND	ND	ND	ND	ND	ND	ND
August 2005	ND	ND	ND	ND	ND	ND	ND
November 2005	ND	NR	ND	ND	ND	ND	ND

#### Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.

Table 2

VOC Analytical Data Summary- Shallow Groundwater

Hillsdale Tool and Rubber Division

Date	Tetrachloroethene	Trichloroethene	1,1,1- Trichloroethane	cis-1,2- Dichloroethene	1,1- Dichloroethane	1,1- Dichloroethene	Benzene
October 2001	ND	ND	ND	ND	ND	ND	ND
January 2002	ND	7.3	ND	ND	ND	ND	ND
April 2002	ND	1.5	ND	ND	ND	ND	ND
July 2002	ND	ND	ND	ND	ND	ND	ND
October 2002	ND	ND	ND	ND	ND	ND	ND
January 2003	ND	ND	ND	ND	ND	ND	ND
April 2003	ND	ND	ND	ND	ND	ND	ND
August 2003	ND	ND	ND	ND	ND	ND	ND
October 2003	ND	. ND	ND	ND	ND	ND	ND
January 2004	ND	ND	ND	ND	ND	ND	ND
April 2004	NR	NR	ND	ND	ND	ND	ND
August 2004	ND	ND	ND	ND	ND	ND	ND
November 2004	ND	ND	ND	ND	ND	ND	ND
January 2005	ND	ND	ND	ND	ND	ND	NR
June 2005	ND	ND	ND	ND	ND	ND	ND
August 2005	ND	ND	ND	ND	ND	ND	ND
November 2005	ND	1.2	ND	ND	ND	ND	ND

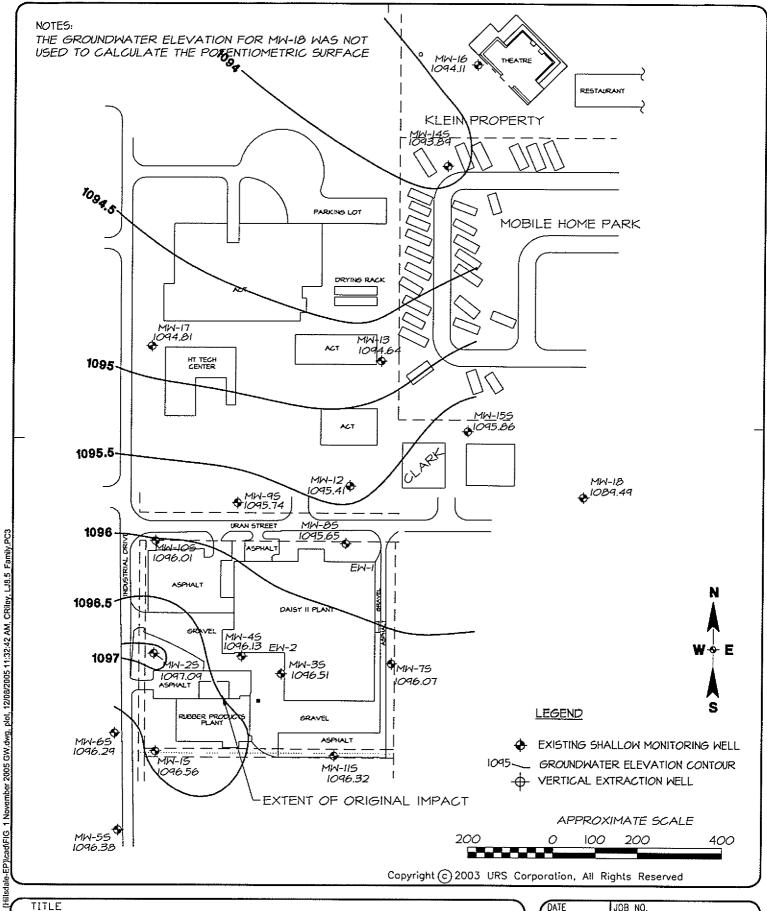
# Notes:

Concentrations in parts per billion (ppb).

ND=Not detected

NS=Not sampled

NR=Estimated concentrations (J-qualified results) are not reported.



GROUNDWATER ELEVATIONS 11/2005

URS CORPORATION, FARMINGTON HILLS, Mi., 248-553-9449

W.\EnvProjects\21

DATE 12/7/05	<sup>ЈОВ NO.</sup> 21560784.00060
DR. CR	SKETCH NO.
ск. PT	FIGURE 1

# 聞 S I I

# CASE NARRATIVE

# CASE NARRATIVE

A5K190219

The following report contains the analytical results for nineteen water samples and one quality control sample submitted to STL North Canton by URS from the HTR - Hillsdale, MI (EP Auto) Site, project number 21560784.00040. The samples were received November 19, 2005, according to documented sample acceptance procedures.

The analysis was performed at the STL North Canton laboratory.

STL utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Doug Wehner on December 07, 2005. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT."

# SUPPLEMENTAL QC INFORMATION

# SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.9°C.

# **CASE NARRATIVE (continued)**

# **GC/MS VOLATILES**

The sample(s) that contain results between the MDL and the RL were flagged with "J". There is a possibility of false positive or mis-identification at these quantitation levels. In analytical methods requiring confirmation of the analyte reported, confirmation was performed only down to the standard reporting limit (SRL). The acceptance criteria for QC samples may not be met at these quantitation levels.

The matrix spike/matrix spike duplicate(s) for MW-4S had recoveries outside acceptance limits. However, since the associated method blank(s) and laboratory control sample(s) were in control, no corrective action was necessary.

2-Chloroethyl vinyl ether cannot be reliably recovered in an acid preserved sample.

# QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

#### **OC BATCH**

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

#### LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

#### METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals
contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration
must be twenty fold less than the concentration reported in the associated environmental samples. (See common
laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	<u>Metals</u>
Methylene chloride	Phthalate Esters	Соррег
Acetone		Iron
2-Butanone		Zinc
		Lead*

• for analyses run on TJA Trace ICP, ICPMS or GFAA only

# QUALITY CONTROL ELEMENTS OF SW-846 METHODS (Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

#### MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

#### **SURROGATE COMPOUNDS**

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is repreped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be repreped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.

# STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225),
Illinois (#200004), Kansas (#E10336), Massachusetts (#M-OH048), Maryland (#272), Minnesota (#39-999-348), New
Jersey (#OH001), New York (#10975), North Carolina (#39702), Ohio (#6090), OhioVAP (#CL0024), Rhode Island
(#237), South Carolina (#92007001, #92007002, #92007003), Tennessee (#02903), Utah (#QUAN9), Virginia
(#00011), West Virginia (#210), Wisconsin (#999518190),NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence —
Participating Lab Status Award (#82)

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# EXECUTIVE SUMMARY

# **EXECUTIVE SUMMARY - Detection Highlights**

# A5K190219

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-12 11/16/05 15:06 001				
cis-1,2-Dichloroethene Tetrachloroethene 1,1,1-Trichloroethane Trichloroethene	0.63 J 0.24 J 1.1 54	1.0 1.0 1.0	ug/L ug/L ug/L ug/L	SW846 8260B SW846 8260B SW846 8260B SW846 8260B
MW-13 11/17/05 17:29 002				
Benzene 1,1-Dichloroethane cis-1,2-Dichloroethene 1,1-Dichloroethene Tetrachloroethene 1,1,1-Trichloroethane Trichloroethene	0.34 J 0.26 J 2.4 0.24 J 0.67 J 2.7	1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	SW846 8260B SW846 8260B SW846 8260B SW846 8260B SW846 8260B SW846 8260B SW846 8260B
MW-14S 11/17/05 11:39 003				
1,1,1-Trichloroethane Trichloroethene	1.5 11	1.0 1.0	ug/L ug/L	SW846 8260B SW846 8260B
MW-16 11/16/05 16:50 004				
1,1,1-Trichloroethane Trichloroethene	0.29 J 4.2	1.0	ug/L ug/L	SW846 8260B SW846 8260B
MW-17 11/17/05 14:55 005				
Trichloroethene	0.36 Ј	1.0	ug/L	SW846 8260B
MW-18 11/17/05 14:21 006				
Trichloroethene  MW-8SA 11/17/05 09:25 007	1.2	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane Trichloroethene	0.39 J 31	1.0	ug/L ug/L	SW846 8260B SW846 8260B
MW-3SA 11/17/05 16:30 009				
Benzene 1,1-Dichloroethane cis-1,2-Dichloroethene	0.52 J 0.67 J 6.1	2.0 2.0 2.0	ug/L ug/L ug/L	SW846 8260B SW846 8260B SW846 8260B

(Continued on next page)

# **EXECUTIVE SUMMARY - Detection Highlights**

# A5K190219

		REPORTIN	1G	ANALYTICAL
PARAMETER	RESULT	LIMIT	UNITS	METHOD
. 1944				***************************************
MW-3SA 11/17/05 16:30 009				
1,1-Dichloroethene	0.61 J	2.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	5.3	2.0	ug/L	SW846 8260B
Trichloroethene	170	2.0	ug/L	SW846 8260B
MW-1S 11/16/05 17:40 010				
Trichloroethene	9.0	1.0	ug/L	SW846 8260B
MW-2S 11/17/05 16:48 011				
Benzene	1.3	1.0	ug/L	SW846 8260B
Trichloroethene	12	1.0	ug/L	SW846 8260B
MW-3S 11/17/05 16:30 012				
cis-1,2-Dichloroethene	6.3	5.7	ug/L	SW846 8260B
1,1,1-Trichloroethane	5.5 J	5.7	ug/L	SW846 8260B
Trichloroethene	190	5.7	ug/L	SW846 8260B
MW-4S 11/17/05 16:38 013	<b></b>			
cis-1,2-Dichloroethene	17	8.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	5.6 J	8.0	ug/L	SW846 8260B
Trichloroethene	320	8.0	ug/L	SW846 8260B
MW-5S 11/17/05 17:10 014				
Methylene chloride	0.26 J	5.0	ug/L	SW846 8260B
Trichloroethene	6.3	1.0	ug/L	SW846 8260B
MW-6S 11/17/05 16:55 015				
Benzene	0.27 J	1.0	ug/L	SW846 8260B
Trichloroethene	3.6	1.0	ug/L	SW846 8260B
MW-7S 11/17/05 09:54 016				
Benzene	0.49 j	1.0	ug/L	SW846 8260B
1,1,1-Trichloroethane	0.39 J	1.0	ug/L	SW846 8260B
Trichloroethene	25	1.0	ug/L	SW846 8260B
			<del>-</del> ·	

(Continued on next page)

# **EXECUTIVE SUMMARY - Detection Highlights**

# A5K190219

	PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
MW-8S	11/17/05 09:25 017				
MW-9S	Tetrachloroethene 1,1,1-Trichloroethane Trichloroethene 11/16/05 15:05 018	0.22 J 0.41 J 32	1.0 1.0 1.0	ug/L ug/L ug/L	SW846 8260B SW846 8260B SW846 8260B
	1,1,1-Trichloroethane Trichloroethene	1.1	1.0	ug/L ug/L	SW846 8260B SW846 8260B
MW-10S	11/17/05 17:41 019				
	Trichloroethene	4.6	1.0	ug/L	SW846 8260B
MW-11S	11/17/05 17:19 020				
	Trichloroethene	4.5	1.0	ug/L	SW846 8260B

STL North Canton

# ANALYTICAL METHODS SUMMARY

# A5K190219

PARAMETER ANALYTICAL METHOD

Volatile Organics by GC/MS SW846 8260B

References:

SW846

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.



# SAMPLE SUMMARY

# SAMPLE SUMMARY

# A5K190219

<u>wo_#</u>	SAMPLE:	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HQMF0	001	MW-12	11/16/05	15:06
HQMF2	002	MW-13	11/17/05	17:29
HQMF4	003	MW-14S	11/17/05	11:39
HQMF5	004	MW-16	11/16/05	16:50
HQMF6	005	MW-17	11/17/05	14:55
HQMF7	006	MW-18	11/17/05	
HQMF8	007	MW-8SA	11/17/05	09:25
HQMF9	800	HSI-TRIP BLANK	11/08/05	
HQMGE	009	MW-3SA	11/17/05	16:30
HQMGH	010	MW-1S	11/16/05	17:40
HQMGJ	011	MW-2S	11/17/05	
HQMGK	012	MW-3S	11/17/05	
HQMGL	013	MW-4S	11/17/05	
HQMGM	014	MW-5S	11/17/05	
HQMGP	015	MW-6S	11/17/05	
HQMGQ	016	MW-7S	11/17/05	
HQMGT	017	MW-8S	11/17/05	
HQMGV	018	MW-9S	11/16/05	
HQMGW	019	MW-10S	11/17/05	
HQMGX	020	MW-11S	11/17/05	

# NOTE(S):

<sup>-</sup> The analytical results of the samples listed above are presented on the following pages,

<sup>-</sup> All calculations are performed before rounding to avoid round-off errors in calculated results,

<sup>-</sup> Results noted as "ND" were not detected at or above the stated limit.

<sup>-</sup> This report must not be reproduced, except in full, without the written approval of the laboratory.

<sup>-</sup> Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.



# SHIPPING AND RECEIVING DOCUMENTS

# Chain of Custody Record



Severn Trent Laboratories, Inc.

iTL-4124 (0901)																
Cherly URS CORP	1 / 1	Manager	( - C		10.	10. T			Date,	dor	Ch	Chain of Custody Number				
34555 W. 12. Mile	Pd.	Talepho	CLA /	Area Cod	e)/Fax N	umber	Cr. L	acy		Lab Nun	3/05 nber		<u>ـــر</u> ا	$\frac{L_{ij}}{2}$		
City State Zip	Site Co.	ntact		Lab Co	nlact			Aı	nalysis (At	lach list if	Pa	ige\	_ 01			
Project Name and Location (State)	<u>832/</u>				<u> </u>				T 1	re space i	s needeaj					
TTR - Hillsdale MI (EP A	(tr)	Camer	Waybili Numl	ber									Special	Instructions/		
21560784.00040			Mate	rix		Contair Preserv								ns of Receipt		
Sample I.D. No. and Description Containers for each sample may be combined on one tine)	Date	Time	Au Aquesus Sed.	300	Unpres H2SO4	HNO3 HC!	NaOH Znaci NaOH									
1W-12	11/16/05	1506	Х			X		X								
NW-13	31 1: 1 I.	729	Ý.			X	1	ÍΧ				1				
1W-14S	7	139	TX.						- -		1 1 1	1		····		
1W-16	1/16/05	650	X			1 15	1		1		+					
1W-17	17/05/	455	X			1 1	1-1-				111		····			
1W-18	1/17/05/	421	T\( \frac{1}{2} \rightarrow \)			† {/			+		+	+++				
1W-8SA	117/05 0	<del></del>	V			Ì		<del> </del>			++-	1		<del></del>		
1ST - trip blank	1/8/05	100	X			ΙX		X								
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ossible Hazard Identification																
_	] Poison 8	Unknown	Sample Di	•	172	2	_	_			(A fee may l	be assessed	d if samples are	retained		
im Around Time Required	J FOISON B	Unknown	Return	To Cliant		Disposal -	By Lab nents (Spe	Archive I	For	Months	longer than	1 month)				
24 Hours 🔲 48 Hours 🔲 7 Days 💢 14 Day	s 🔲 21 Days	□ ome	u.		100	nequiter	nents (Spe	ecny)								
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Relinquished By			7 Tir		3.	Received		Dunies					1-9-05 Date	9:45		
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omments								······································						<u> </u>		
STRIBUTION: WHITE - Returned to Client with Report: Co	NARY · Stays with	the Sampl	le. PINK · Fie	eld Copy												
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# Chain of Custody Record



Severn Trent Laboratories, Inc.

STL-4124 (0901)															·								
CHENTURS CORP.	-1D	Doug Wehner/Peter Tacq											Dali	Date /18/05					Chain of Custody Number				
Address 34555 W. 12 Mile Rd	Talga.	(248) 553-9449											Lab Number					ge	2	00	2		
Farminaton Hills Phy 49331	Sjip C	aig k		ab Contact						Ar mo	alysis re spa	(Attac	ch list i needec	f i)		ملب عو		_ 0/ .		=			
Project Name and Location (State) HTR-HILLAGE MI (EP Auto) Contract/Purchase Order/Ouote No.	r/Waybill														c.	naial	ta ada	*!+/					
Contract/Purchase Order/Ouote No. 21540784.00040		Matrix					Containers & Preservatives											Special Instructions/ Conditions of Receipt					
Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Time	Air	Sed	PS S	Unpres	HNO3	FG.	NaOH	NaOH	- PO													
MW-35A 11/17/0	5 1630	X	1				X		1													-	
MW-18 11166		X					JΧ															_	
MW-25 117/6	5 1648						X																
MM-32  111310	5 1630						X				T											_	
MW-45 11/17/0	5 1638	X					K										7 1						
MW-55 11/17/0		IX					又								_	† †	1 1	· · · · <del>- · · · · · · · · · · · · · · ·</del>					
MW-105 11/17/	25 455	X					V					1	T		_	1	11					_	
1w-15 "/17/0	5 15000						Х		$\top$		$\neg$					1 +	† †					-	
MW-85 117/0		ΪŶ		1			K		$\top$	1			_	† †	$\neg$	++	++				<del></del>	-	
MW-95 11/16/0		X				†	V				$\top$				$\dashv$						···	_	
MW-105 11/17/0		Í		1		1	Ŷ		+		_		-	11	$\dashv$	+ +	+ +					-	
MW-115 11/17/0	5 1719	ΠŹ					Ý		$\dagger$	+	_	$\dagger \exists$	$\dashv$		-	++	++						
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☐ Non-Hazard ☐ Flammable ☐ Skin ltritant ☐ Poison &	3 Unknow	n   D A	eturn T	o Clien				ly Lab	Speci	Archi	ve For		Mo	nths	longer	ihan I m	onth)		nes a, e	i etameu		_	
24 Hpurs 48 Hours 7 Days 14 Days 2	i Days 🔲 Ot	her			_   ``	J 1104	40.4 671	ionica t	apecii	·y)												<b>c</b> :	
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3. Relinquished By	Tune		3.	3. Received By Date									_بي	Time		North							
Comments			-L		<del></del>															<u> </u>		-ž	
ISTRIBUTION: WHITE - Returned to Client with Report: CANARY - S	lave with the Cam	nio Orsii	/ Eint∃	· · ·																	·	STL	
The second manager, Caragraft	iuya mini (IIB SAM	pie, PINI	· rield	Сору			<u> </u>															Ω	

STL Cooler Receipt Form/Narrative Lot Number: Aうと190219				
North Canton Fac	ility			
Client:	Project: HTR-15 Opened on: 11-16  If UPS DHL FAS Other: Tother: Tother	STL Courier Cooler No In You	by: Some by:	
6. Cooler temperature upon receipt				
Concerning:  √  √  √  √  √  √  √  √  √  √  √  √  √				
The following discre		ted for a	iny Hists.	will
2. SAMPLE CONDITIO				
Sample(s)			commended holding	time had expired.
Sample(s)  3. SAMPLE PRESERVA		received in a brol	AGII COMAMICE.	
Sample(s) were further preserved in sample receiving to meet recommended pH level(s). Nitric Acid Lot # 091305-HNO3; Sulfuric Acid Lot # 041305-HZSO4; Sodium Hydroxide Lot # -041305 -NaOH; Hydrochloric Acid Lot # 100504-HCI; Sodium Hydroxide and Zinc Acetate Lot # 071604-CH3CO02ZN/NaOH  Sample(s) were received with bubble > 6 mm in diameter (cc: PM)				
4. Other (see below or back)				
Client ID	pH		Date	Initials

SOP: NC-SC-0005, Sample Receiving N:\QAQCWARRATIVSTL\Cooler Receipt STL\COOLER\STL\Rev 51\092005.doc

# STL Cooler Receipt Form/Narrative North Canton Facility Client ID pН Date Initials Cooler Temp Method Coolant Discrepancies Cont.



# GCMS VOLATILE DATA

# Client Sample ID: MW-12

### GC/MS Volatiles

Lot-Sample #...: A5K190219-001 Work Order #...: HQMF01AA Matrix...... WG

Date Sampled...: 11/16/05 15:06 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			•
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	0.63 J	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ИD	1.0	ug/L
		•	J/

# Client Sample ID: MW-12

Lot-Sample #: A5K190219-001	Work Order #: HQM	F01AA Matrix WG
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		REPORTING	3
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	0.24 J	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			<b>-</b>
1,1,1-Trichloroethane	1.1	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	54	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane		•	<u> </u>
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
			<del>-</del>
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	****
Dibromofluoromethane	98	(73 - 122	)
1,2-Dichloroethane-d4	94	(61 - 128	
Toluene-d8	102	(76 - 110	
4-Bromofluorobenzene	100	(74 - 116	)
NOTE(S):			

J Estimated result. Result is less than RL.

# Client Sample ID: MW-13

### GC/MS Volatiles

Lot-Sample #...: A5K190219-002 Work Order #...: HQMF21AA Matrix...... WG

Date Sampled...: 11/17/05 17:29 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

	REPORTING		
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	0.34 J	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ИD	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro~	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	0.26 Ј	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	2.4	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	0.24 J	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-13

Lot-Sample #: A5K190219-002	Work Order #: HQMF21AA	Matrix WG
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		REPORTIN	
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	0.67 Ј	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			. 5,
1,1,1-Trichloroethane	2.7	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	92	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane		<del>-</del>	-3,-
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
- · · · · · · · · · · · · · · · · · · ·	<del>- · -</del>		-5/-
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	104	(73 - 122	2)
1,2-Dichloroethane-d4	94	(61 - 128	•
	102	(76 - 110	
Toluene-d8			

J. Estimated result. Result is less than RL.

### Client Sample ID: MW-14S

# GC/MS Volatiles

Lot-Sample #...: A5K190219-003 Work Order #...: HQMF41AA Matrix...... WG

Date Sampled...: 11/17/05 11:39 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTIN	ſĠ
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ИD	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			_
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
			-

# Client Sample ID: MW-14S

# GC/MS Volatiles

Lot-Sample #: A5K190219-003	Work Order #: HQMF41AA	Matrix WG
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		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			<b>~</b> .
1,1,1-Trichloroethane	1.5	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	11	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	97	(73 - 122)	
1,2-Dichloroethane-d4	93	(61 - 128)	
Toluene-d8	103	(76 - 110)	
4-Bromofluorobenzene	102	(74 - 116)	

STL North Canton

# Client Sample ID: MW-16

# GC/MS Volatiles

Lot-Sample #...: A5K190219-004 Work Order #...: HQMF51AA Matrix...... WG

Date Sampled...: 11/16/05 16:50 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTIN	IG
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10.	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ИD	1.0	ug/L
cis-1,2-Dichloroethene	ממ	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-16

Lot-Sample #: A5K190219-004	Work Order #: HQMF51AA	Matrix WG
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		REPORTIN	1G
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ИD	1.0	ug/L
Isopropylbenzene	ИD	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	uq/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			
1,1,1-Trichloroethane	0.29 J	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	4.2	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			<del>-</del>
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	98	(73 - 12	2)
1,2-Dichloroethane-d4	93	(61 - 12	-
Toluene-d8	103	(76 - 11	0)
4-Bromofluorobenzene	103	(74 - 11	6}
NOTE(S):			

J Estimated result. Result is less than RL.

# Client Sample ID: MW-17

# GC/MS Volatiles

Lot-Sample #...: A5K190219-005 Work Order #...: HQMF61AA Matrix...... WG

Date Sampled...: 11/17/05 14:55 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

		REPORTIN	r <b>G</b>
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ИD	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ИD	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			_
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-17

Lot-Sample #: A5K190219-005	Work Order #: HQMF61AA	Matrix WG
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		REPORTIN	1G
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	10	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			-3, -
1,1,1-Trichloroethane	ND	1.0	ug/L
,1,2-Trichloroethane	ND	1.0	ug/L
Crichloroethene	0.36 J	1.0	ug/L
Frichlorofluoromethane	, ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane		_ · · ·	-J/ -
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
/inyl chloride	ND	1.0	ug/L
(ylenes (total)	ND	2.0	ug/L
			٥,
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
ibromofluoromethane	98	(73 - 12	
.,2-Dichloroethane-d4	95	(61 - 12	
oluene-d8	102	(76 - 11	
4-Bromofluorobenzene	101	(74 - 11	6)
JOTE (C).			
NOTE(S):			···········

J Estimated result. Result is less than RL.

### Client Sample ID: MW-18

# GC/MS Volatiles

Lot-Sample #...: A5K190219-006 Work Order #...: HQMF71AA Matrix...... WG

Date Sampled...: 11/17/05 14:21 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

	REPO		ORTING		
PARAMETER	RESULT	LIMIT	UNITS		
Acetone	ND	25	ug/L		
Acrolein	ND	5.0	ug/L		
Acrylonitrile	ND	20	ug/L		
Benzene	ND	1.0	ug/L		
Bromobenzene	ND	1.0	ug/L		
Bromodichloromethane	ND	1.0	ug/L		
Bromoform	ND	1.0	ug/L		
Bromomethane	ND	1.0	ug/L		
2-Butanone	ND	25	ug/L		
n-Butylbenzene	ND	1.0	ug/L		
sec-Butylbenzene	ИD	1.0	ug/L		
tert-Butylbenzene	ND	1.0	ug/L		
Carbon tetrachloride	ND	1.0	ug/L		
Chlorobenzene	ND	1.0	ug/L		
Chlorodibromomethane	ND	1.0	ug/L		
Chloroethane	ND	1.0	ug/L		
2-Chloroethyl vinyl ether	ND	10	ug/L		
Chloroform	ND	1.0	ug/L		
Chloromethane	ND	1.0	ug/L		
2-Chlorotoluene	ИD	1.0	ug/L		
4-Chlorotoluene	ND	1.0	ug/L		
1,2-Dibromo-3-chloro-	ND	1.0	ug/L		
propane					
1,2-Dibromoethane	ND	1.0	ug/L		
Dibromomethane	ND	5.0	ug/L		
1,2-Dichlorobenzene	ND	1.0	ug/L		
1,3-Dichlorobenzene	ND	1.0	ug/L		
1,4-Dichlorobenzene	ND	1.0	ug/L		
Dichlorodifluoromethane	ND	1.0	ug/L		
1,1-Dichloroethane	ND	1.0	ug/L		
1,2-Dichloroethane	ND	1.0	ug/L		
cis-1,2-Dichloroethene	ND	1.0	ug/L		
trans-1,2-Dichloroethene	ND	1.0	ug/L		
1,1-Dichloroethene	ND	1.0	ug/L		
1,2-Dichloropropane	ND	1.0	ug/L		
1,3-Dichloropropane	ND	1.0	ug/L		
2,2-Dichloropropane	ND	1.0	ug/L		
cis-1,3-Dichloropropene	ND	1.0	ug/L		

# Client Sample ID: MW-18

# GC/MS Volatiles

Lot-Sample #:	A5K190219-006	Work Order #	: HOMF71AA	Matrix	- WG

		REPORTIN	'G
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	uq/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			<u> </u>
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	1.2	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			_
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	V 47 1 0	~ · · · · · · · · · · · · · · · · · · ·	
CUIDDAGAME	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	<del></del>
Dibromofluoromethane	101	(73 - 122	
1,2-Dichloroethane-d4	95	(61 - 128	
Toluene-d8 4-Bromofluorobenzene	105	(76 - 110	
4-Bromortuoropenzene	100	(74 - 116	5)

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### Client Sample ID: MW-8SA

### GC/MS Volatiles

Lot-Sample #...: A5K190219-007 Work Order #...: HQMF81AA Matrix.....: WG

Date Sampled...: 11/17/05 09:25 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-8SA

Lot-Sample #: A5K190219-007	Work Order #: HQMF81AA	Matrix WG
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		REPORTIN	r <b>G</b>
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ИD	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			3, -
1,1,1-Trichloroethane	0.39 J	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	31	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			-3, -
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	101	(73 - 12	2)
1,2-Dichloroethane-d4	91	(61 - 128	3)
Toluene-d8	102	(76 - 110	0)
4-Bromofluorobenzene	100	(74 - 116	5)
NOTE(S):			

J Estimated result. Result is less than RL.

# Client Sample ID: HSI-TRIP BLANK

# GC/MS Volatiles

Lot-Sample #...: A5K190219-008 Work Order #...: HQMF91AA Matrix...... WQ

Date Sampled...: 11/08/05 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTIN	G
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
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# Client Sample ID: HSI-TRIP BLANK

# GC/MS Volatiles

Lot-Sample #...: A5K190219-008 Work Order #...: HQMF91AA Matrix...... wQ

		REPORTING	3
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	ND	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	101	(73 - 122	)
1,2-Dichloroethane-d4	93	(61 - 128	
Toluene-d8	101	(76 - 110	
4-Bromofluorobenzene	100	(74 - 116	
****** - **** *** ************	200	(,, 110	,

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# Client Sample ID: MW-3SA

### GC/MS Volatiles

Lot-Sample #...: A5K190219-009 Work Order #...: HQMGE1AA Matrix...... WG

Date Sampled...: 11/17/05 16:30 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 2 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	50	ug/L
Acrolein	ND	10	ug/L
Acrylonitrile	ND	40	ug/L
Benzene	0.52 J	2.0	ug/L
Bromobenzene	ND	2.0	ug/L
Bromodichloromethane	ND .	2.0	ug/L
Bromoform	ND	2.0	ug/L
Bromomethane	ND	2.0	ug/L
2-Butanone	ND	50	ug/L
n-Butylbenzene	ND	2.0	ug/L
sec-Butylbenzene	ND	2.0	ug/L
tert-Butylbenzene	ND	2.0	ug/L
Carbon tetrachloride	ND	2.0	ug/L
Chlorobenzene	ND	2.0	ug/L
Chlorodibromomethane	ND	2.0	ug/L
Chloroethane	ND	2.0	ug/L
2-Chloroethyl vinyl ether	ND	20	ug/L
Chloroform	ND	2.0	ug/L
Chloromethane	ND	2.0	ug/L
2-Chlorotoluene	ND	2.0	ug/L
4-Chlorotoluene	ND	2.0	ug/L
1,2-Dibromo-3-chloro-	ND	2.0	ug/L
propane			-
1,2-Dibromoethane	ND	2.0	ug/L
Dibromomethane	ND	10	ug/L
1,2-Dichlorobenzene	ND	2.0	ug/L
1,3-Dichlorobenzene	ND	2.0	ug/L
1,4-Dichlorobenzene	ND	2.0	ug/L
Dichlorodifluoromethane	ND	2.0	ug/L
1,1-Dichloroethane	0.67 J	2.0	ug/L
1,2-Dichloroethane	ND	2.0	ug/L
cis-1,2-Dichloroethene	6.1	2.0	ug/L
trans-1,2-Dichloroethene	ND	2.0	ug/L
1,1-Dichloroethene	0.61 J	2.0	ug/L
1,2-Dichloropropane	ND	2.0	ug/L
1,3-Dichloropropane	ND	2.0	ug/L
2,2-Dichloropropane	ND	2.0	ug/L
cis-1,3-Dichloropropene	ND	2.0	ug/L

# Client Sample ID: MW-3SA

Lot-Sample #: A5K190219-009	Work Order #	: HOMGE1AA	Matrix	WG
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		REPORTIN	
PARAMETER	RESULT	<u>LIMIT</u>	UNITS
rans-1,3-Dichloropropene	ND	2.0	ug/L
.,1-Dichloropropene	ND	2.0	ug/L
Ethylbenzene	ND	2.0	ug/L
exachlorobutadiene	ND	2.0	ug/L
sopropylbenzene	ND	10	ug/L
sopropyl ether	ND	20	ug/L
-Isopropyltoluene	ИD	2.0	ug/L
ethylene chloride	ND	10	ug/L
-Methyl-2-pentanone	ND	100	ug/L
ethyl tert-butyl ether	ND	10	ug/L
aphthalene	ND	1.0	ug/L
-Propylbenzene	ND	2.0	ug/L
tyrene .	ND	2.0	ug/L
1,1,2-Tetrachloroethane	ND	2.0	ug/L
1,2,2-Tetrachloroethane	ND	2.0	ug/L
etrachloroethene	ND	2.0	ug/L
luene	ND	2.0	ug/L
2,3-Trichlorobenzene	ND	1.0	ug/L
2,4-Trichloro- benzene	ND	10	ug/L
1,1-Trichloroethane	5.3	2.0	ug/L
1,2-Trichloroethane	ND	2.0	ug/L
richloroethene	170	2.0	ug/L
ichlorofluoromethane	ND	2.0	ug/L
2,3-Trichloropropane	ND	2.0	ug/L
1,2-Trichloro-	ND	2.0	ug/L
1,2,2-trifluoroethane		_ 1 5	,
2,4-Trimethylbenzene	ND	2.0	ug/L
3,5-Trimethylbenzene	ND	2.0	ug/L
nyl chloride	ND	2.0	ug/L
lenes (total)	ND	4.0	ug/L
	PERCENT	RECOVERY	
JRROGATE	RECOVERY	LIMITS	
bromofluoromethane	98	(73 - 12	2)
2-Dichloroethane-d4	95	(61 - 12	B)
luene-d8	103	(76 - 11	0)
Bromofluorobenzene	99	(74 - 11	5)

J. Estimated result. Result is less than RL.

# Client Sample ID: MW-1S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-010 Work Order #...: HQMGH1AA Matrix......: WG

Date Sampled...: 11/16/05 17:40 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	. 1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ИD	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ИD	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro~	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ИД	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-1S

# GC/MS Volatiles

Lot-Sample #: A5K190219-010 Work Orde	r #: HOMGH1AA	Matrix WG
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PARAMETER			REPORTING	
Trans-1,3-Dichloropropene	PARAMETER	RESULT	LIMIT	UNITS
1.1-Dichloropropene	trans-1,3-Dichloropropene	MD	1.0	
Ethylbenzene	<del></del>	ND	1.0	<del>-</del>
Hexachlorobutadiene	Ethylbenzene	ND	1.0	<del>-</del> .
Isopropylenzene	Hexachlorobutadiene	ND	1.0	_
Isopropyl ether	Isopropylbenzene	ND	5.0	_
Description   ND   1.0   Ug/L	<del>"</del>	ND	10	_
Methylene chloride         ND         5.0         ug/L           4-Methyl-2-pentanone         ND         50         ug/L           Methyl tert-butyl ether         ND         5.0         ug/L           Naphthalene         ND         5.0         ug/L           n-Propylbenzene         ND         1.0         ug/L           Styrene         ND         1.0         ug/L           Styrene         ND         1.0         ug/L           1,1,2-Tetrachloroethane         ND         1.0         ug/L           Tetrachloroethane         ND         1.0         ug/L           Tetrachloroethene         ND         1.0         ug/L           Toluene         ND         1.0         ug/L           1,2,3-Trichloroebenzene         ND         5.0         ug/L           1,1,1-Trichloroethane         ND         1.0         ug/L           1,1,2-Trichloroethane         ND         1.0         ug/L           Trichlorofluoromethane         ND         1.0         ug/L           1,2,2-trifluoroethane         ND         1.0         ug/L           1,2,2-trifluoroethane         ND         1.0         ug/L           Vinyl chloride <t< td=""><td>p-Isopropyltoluene</td><td>ИĎ</td><td></td><td><del>-</del> '</td></t<>	p-Isopropyltoluene	ИĎ		<del>-</del> '
A-Methyl-2-pentanone         ND         50         ug/L           Methyl tert-butyl ether         ND         5.0         ug/L           Naphthalene         ND         5.0         ug/L           n-Propylbenzene         ND         1.0         ug/L           Styrene         ND         1.0         ug/L           1,1,1,2-Tetrachloroethane         ND         1.0         ug/L           1,1,2,2-Tetrachloroethane         ND         1.0         ug/L           Tetrachloroethene         ND         1.0         ug/L           Toluene         ND         1.0         ug/L           1,2,3-Trichlorobenzene         ND         5.0         ug/L           1,2,4-Trichloro-         ND         5.0         ug/L           1,1,2-Trichloroethane         ND         1.0         ug/L           1,1,2-Trichloroethane         ND         1.0         ug/L           1,2,3-Trichloropropane         ND         1.0         ug/L           1,2,2-Trichloro-         ND         1.0         ug/L           1,2,2-trifluoroethane         ND         1.0         ug/L           1,2,3-Trimethylbenzene         ND         1.0         ug/L           1,3,5-Trimeth		ND	5.0	<del>-</del>
Methyl tert-butyl ether         ND         5.0         ug/L           Naphthalene         ND         5.0         ug/L           n-Propylbenzene         ND         1.0         ug/L           Styrene         ND         1.0         ug/L           1,1,1,2-Tetrachloroethane         ND         1.0         ug/L           1,1,2,2-Tetrachloroethane         ND         1.0         ug/L           Toluene         ND         1.0         ug/L           1,2,3-Trichlorobenzene         ND         5.0         ug/L           1,2,4-Trichloro-         ND         5.0         ug/L           1,1,1-Trichloroethane         ND         1.0         ug/L           1,1,1-Trichloroethane         ND         1.0         ug/L           Trichloroethane         9.0         1.0         ug/L           Trichloroethane         9.0         1.0         ug/L           1,2,3-Trichloropropane         ND         1.0         ug/L           1,2,2-trifluoroethane         ND         1.0         ug/L           1,3,5-Trimethylbenzene         ND         1.0         ug/L           Vinyl chloride         ND         1.0         ug/L           Xylenes (total) <td><del>-</del></td> <td>ND</td> <td></td> <td></td>	<del>-</del>	ND		
Naphthalene		ND		
ND		ND		<del>-</del> '.
Styrene	n-Propylbenzene	ND		_
1,1,1,2-Tetrachloroethane ND 1.0 ug/L 1,1,2,2-Tetrachloroethane ND 1.0 ug/L Tetrachloroethene ND 1.0 ug/L Toluene ND 1.0 ug/L 1,2,3-Trichlorobenzene ND 5.0 ug/L 1,2,4-Trichloro- ND 5.0 ug/L 1,1,1-Trichloroethane ND 1.0 ug/L 1,1,2-Trichloroethane ND 1.0 ug/L 1,1,2-Trichloroethane ND 1.0 ug/L Trichloroethene 9.0 1.0 ug/L Trichlorofluoromethane ND 1.0 ug/L 1,2,3-Trichloropropane ND 1.0 ug/L 1,2,3-Trichloroethane ND 1.0 ug/L 1,2,3-Trichloroethane ND 1.0 ug/L 1,1,2-Trichloro- ND 1.0 ug/L 1,3,5-Trimethylbenzene ND 1.0 ug/L 1,3,5-Trimethylbenzene ND 1.0 ug/L 1,3,5-Trimethylbenzene ND 1.0 ug/L Xylenes (total) ND 2.0 ug/L  SURROGATE RECOVERY LIMITS Dibromofluoromethane 99 (73 - 122) 1,2-Dichloroethane-d4 95 (61 - 128) Toluene-d8 106 (76 - 110)		ND		=
1,1,2,2-Tetrachloroethane	*	ND		_
Tetrachloroethene ND 1.0 ug/L Toluene ND 1.0 ug/L 1,2,3-Trichlorobenzene ND 5.0 ug/L 1,2,4-Trichloro- ND 5.0 ug/L benzene 1,1,1-Trichloroethane ND 1.0 ug/L 1,1,2-Trichloroethane ND 1.0 ug/L Trichloroethene 9.0 1.0 ug/L Trichlorofluoromethane ND 1.0 ug/L 1,2,3-Trichloropropane ND 1.0 ug/L 1,2,3-Trichloropropane ND 1.0 ug/L 1,2,2-trifluoroethane 1,2,4-Trimethylbenzene ND 1.0 ug/L 1,3,5-Trimethylbenzene ND 1.0 ug/L 1,3,5-Trimethylbenzene ND 1.0 ug/L Xylenes (total) ND 2.0 ug/L  SURROGATE RECOVERY LIMITS Dibromofluoromethane 99 (73 - 122) 1,2-Dichloroethane-d4 95 (61 - 128) Toluene-d8 106 (76 - 110)		ND	1.0	<del>-</del> .
Toluene		ND		· · · · · · · · · · · · · · · · · · ·
1,2,3-Trichlorobenzene	Toluene	ND		•
1,2,4-Trichloro- benzene  1,1,1-Trichloroethane 1,1,2-Trichloroethane ND 1.0 ug/L  1,1,2-Trichloroethane ND 1.0 ug/L  Trichloroethene 9.0 1.0 ug/L  Trichlorofluoromethane ND 1.0 ug/L  1,2,3-Trichloropropane ND 1.0 ug/L  1,1,2-Trichloro- ND 1.0 ug/L  1,2,2-trifluoroethane 1,2,4-Trimethylbenzene ND 1.0 ug/L  1,3,5-Trimethylbenzene ND 1.0 ug/L  Vinyl chloride ND 1.0 ug/L	1,2,3-Trichlorobenzene	ND ·	5.0	<del>-</del> '.
Denzene   1,1,1-Trichloroethane   ND	1,2,4-Trichloro-	ND		_
1,1,2-Trichloroethane       ND       1.0       ug/L         Trichloroethene       9.0       1.0       ug/L         Trichlorofluoromethane       ND       1.0       ug/L         1,2,3-Trichlororomethane       ND       1.0       ug/L         1,2,2-trifluoroethane       ND       1.0       ug/L         1,2,4-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         SURROGATE       RECOVERY       LIMITS         Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	benzene			
1,1,2-Trichloroethane       ND       1.0       ug/L         Trichloroethene       9.0       1.0       ug/L         Trichlorofluoromethane       ND       1.0       ug/L         1,2,3-Trichlororomethane       ND       1.0       ug/L         1,2,2-trifluoroethane       ND       1.0       ug/L         1,2,4-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         SURROGATE       RECOVERY       LIMITS         Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	1,1,1-Trichloroethane	ND	1.0	ug/L
Trichloroethene         9.0         1.0         ug/L           Trichlorofluoromethane         ND         1.0         ug/L           1,2,3-Trichloropropane         ND         1.0         ug/L           1,1,2-Trichloropropane         ND         1.0         ug/L           1,2,2-trifluoroethane         ND         1.0         ug/L           1,3,5-Trimethylbenzene         ND         1.0         ug/L           Vinyl chloride         ND         1.0         ug/L           Xylenes (total)         ND         2.0         ug/L           Xylenes (total)         ND         2.0         ug/L           SURROGATE         RECOVERY         LIMITS           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)		ND		_
Trichlorofluoromethane ND 1.0 ug/L  1,2,3-Trichloropropane ND 1.0 ug/L  1,1,2-Trichloro- ND 1.0 ug/L  1,2,2-trifluoroethane  1,2,4-Trimethylbenzene ND 1.0 ug/L  1,3,5-Trimethylbenzene ND 1.0 ug/L  Vinyl chloride ND 1.0 ug/L  Xylenes (total) ND 2.0 ug/L  EXPROGATE PERCENT RECOVERY  Dibromofluoromethane 99 (73 - 122)  1,2-Dichloroethane-d4 95 (61 - 128)  Toluene-d8 106 (76 - 110)		9.0		<del>-</del>
1,2,3-Trichloropropane       ND       1.0       ug/L         1,1,2-Trichloro-       ND       1.0       ug/L         1,2,2-trifluoroethane       ND       1.0       ug/L         1,2,4-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         ECOVERY       LIMITS       Umarrow 1.0       0.0       0.0         Dibromofluoromethane       99       (73 - 122)       0.0       0.0         1,2-Dichloroethane-d4       95       (61 - 128)       0.0       0.0       0.0         Toluene-d8       106       (76 - 110)       0.0	Trichlorofluoromethane	ND	1.0	<del>-</del>
1,1,2-Trichloro-       ND       1.0       ug/L         1,2,2-trifluoroethane       1.0       ug/L         1,2,4-Trimethylbenzene       ND       1.0       ug/L         1,3,5-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         Xylenes (total)       PERCENT       RECOVERY         Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	1,2,3-Trichloropropane	ND	1.0	-
1,2,2-trifluoroethane  1,2,4-Trimethylbenzene ND 1.0 ug/L  1,3,5-Trimethylbenzene ND 1.0 ug/L  Vinyl chloride ND 1.0 ug/L  Xylenes (total) ND 2.0 ug/L  PERCENT RECOVERY  SURROGATE RECOVERY LIMITS  Dibromofluoromethane 99 (73 - 122)  1,2-Dichloroethane-d4 95 (61 - 128)  Toluene-d8 106 (76 - 110)	1,1,2-Trichloro-	ND	1.0	<b></b>
1,3,5-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         PERCENT       RECOVERY         SURROGATE       RECOVERY       LIMITS         Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	1,2,2-trifluoroethane			<b>_</b> .
1,3,5-Trimethylbenzene       ND       1.0       ug/L         Vinyl chloride       ND       1.0       ug/L         Xylenes (total)       ND       2.0       ug/L         PERCENT       RECOVERY         LIMITS       Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	1,2,4-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride         ND         1.0         ug/L           Xylenes (total)         ND         2.0         ug/L           PERCENT         RECOVERY         LIMITS           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)	<del>-</del>	ND		_
Xylenes (total)         ND         2.0         ug/L           PERCENT         RECOVERY         ELIMITS           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)		ND		<del>-</del>
SURROGATE         RECOVERY           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)	Xylenes (total)	ND		<del></del>
SURROGATE         RECOVERY         LIMITS           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)				J.
SURROGATE         RECOVERY         LIMITS           Dibromofluoromethane         99         (73 - 122)           1,2-Dichloroethane-d4         95         (61 - 128)           Toluene-d8         106         (76 - 110)		PERCENT	RECOVERY	
Dibromofluoromethane       99       (73 - 122)         1,2-Dichloroethane-d4       95       (61 - 128)         Toluene-d8       106       (76 - 110)	SURROGATE			
1,2-Dichloroethane-d4 95 (61 - 128) Toluene-d8 106 (76 - 110)	****			<del>-</del> }
Toluene-d8 106 (76 - 110)	1,2-Dichloroethane-d4			
			· ·	

STL North Canton 40

### Client Sample ID: MW-2S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-011 Work Order #...: HQMGJ1AA Matrix.....: WG

Date Sampled...: 11/17/05 16:48 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

		REPORTIN	rG
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	1.3	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	$\mathtt{ug/L}$
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-2S

# GC/MS Volatiles

Lot-Sample #: A5K190219-011 Work	c Order #:	HOMGJ1AA	Matrix:	WG
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PARAMETER         RESULT         LIMIT         UNITS           trans-1,3-Dichloropropene         ND         1.0         ug/L           1,1-Dichloropropene         ND         1.0         ug/L           Ethylbenzene         ND         1.0         ug/L           Hexachlorobutadiene         ND         1.0         ug/L           Isopropylbenzene         ND         5.0         ug/L           Isopropyl ether         ND         10         ug/L           p-Isopropyltoluene         ND         1.0         ug/L
trans-1,3-Dichloropropene         ND         1.0         ug/L           1,1-Dichloropropene         ND         1.0         ug/L           Ethylbenzene         ND         1.0         ug/L           Hexachlorobutadiene         ND         1.0         ug/L           Isopropylbenzene         ND         5.0         ug/L           Isopropyl ether         ND         10         ug/L
1,1-DichloropropeneND1.0ug/LEthylbenzeneND1.0ug/LHexachlorobutadieneND1.0ug/LIsopropylbenzeneND5.0ug/LIsopropyl etherND10ug/L
Ethylbenzene ND 1.0 ug/L Hexachlorobutadiene ND 1.0 ug/L Isopropylbenzene ND 5.0 ug/L Isopropyl ether ND 10 ug/L
HexachlorobutadieneND1.0ug/LIsopropylbenzeneND5.0ug/LIsopropyl etherND10ug/L
Isopropylbenzene ND 5.0 ug/L Isopropyl ether ND 10 ug/L
Isopropyl ether ND 10 ug/L
<del></del>
p-Isopropyltoluene ND 1.0 ug/L
Methylene chloride ND 5.0 ug/L
4-Methyl-2-pentanone ND 50 ug/L
Methyl tert-butyl ether ND 5.0 ug/L
Naphthalene ND 5.0 ug/L
n-Propylbenzene ND 1.0 ug/L
Styrene ND 1.0 ug/L
1,1,1,2-Tetrachloroethane ND 1.0 ug/L
1,1,2,2-Tetrachloroethane ND 1.0 ug/L
Tetrachloroethene ND 1.0 ug/L
Toluene ND 1.0 ug/L
1,2,3-Trichlorobenzene ND 5.0 ug/L
1,2,4-Trichloro- ND 5.0 ug/L benzene
1,1,1-Trichloroethane ND 1.0 ug/L
1,1,2-Trichloroethane ND 1.0 uq/L
Trichloroethene 12 1.0 ug/L
Trichlorofluoromethane ND 1.0 ug/L
1,2,3-Trichloropropane ND 1.0 ug/L
1,1,2-Trichloro- ND 1.0 ug/L
1,2,2-trifluoroethane
1,2,4-Trimethylbenzene ND 1.0 ug/L
1,3,5-Trimethylbenzene ND 1.0 ug/L
Vinyl chloride ND 1.0 ug/L
Xylenes (total) ND 2.0 ug/L
PERCENT RECOVERY
SURROGATE RECOVERY LIMITS
Dibromofluoromethane 102 (73 - 122)
1,2-Dichloroethane-d4 94 (61 - 128)
Toluene-d8 103 (76 - 110)
4-Bromofluorobenzene 103 (74 - 116)

STL North Canton 42

# Client Sample ID: MW-3S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-012 Work Order #...: HQMGK1AA Matrix......: WG

Date Sampled...: 11/17/05 16:30 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 5.71 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTIN	G
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	140	ug/L
Acrolein	ND	29	ug/L
Acrylonitrile	ND	110	ug/L
Benzene	ND	5.7	ug/L
Bromobenzene	ND	5.7	ug/L
Bromodichloromethane	ND	5.7	ug/L
Bromoform	ND	5.7	ug/L
Bromomethane	ND	5.7	ug/L
2-Butanone	ND	140	ug/L
n-Butylbenzene	ND	5.7	ug/L
sec-Butylbenzene	ND	5.7	ug/L
tert-Butylbenzene	ND	5.7	ug/L
Carbon tetrachloride	ND	5.7	ug/L
Chlorobenzene	ND	5.7	ug/L
Chlorodibromomethane	ND	5.7	ug/L
Chloroethane	ИD	5.7	ug/L
2-Chloroethyl vinyl ether	ND	57	ug/L
Chloroform	ND	5.7	ug/L
Chloromethane	ND	5.7	ug/L
2-Chlorotoluene	ND	5.7	ug/L
4-Chlorotoluene	ND	5.7	ug/L
1,2-Dibromo-3-chloro-	ND	5.7	ug/L
propane			
1,2-Dibromoethane	ND	5.7	ug/L
Dibromomethane	ND	29	ug/L
1,2-Dichlorobenzene	ND	5.7	ug/L
1,3-Dichlorobenzene	ND	5.7	ug/L
1,4-Dichlorobenzene	ND	5.7	$\mathtt{ug/L}$
Dichlorodifluoromethane	ND	5.7	ug/L
1,1-Dichloroethane	ND	5.7	ug/L
1,2-Dichloroethane	ND	5.7	ug/L
cis-1,2-Dichloroethene	6.3	5.7	ug/L
trans-1,2-Dichloroethene	ND	5.7	ug/L
1,1-Dichloroethene	ND	5.7	ug/L
1,2-Dichloropropane	ND	5.7	ug/L
1,3-Dichloropropane	ND	5.7	ug/L
2,2-Dichloropropane	ND	5.7	ug/L
cis-1,3-Dichloropropene	ND	5.7	ug/L

# Client Sample ID: MW-3S

Lot-Sample #: A5K190219-012	Work Order #: HQMGK1AA	Matrix WG
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		REPORTIN	
PARAMETER	RESULT	<u>LIMIT</u>	UNITS
trans-1,3-Dichloropropene	ND	5.7	ug/L
1,1-Dichloropropene	ИD	5.7	ug/L
Ethylbenzene	ND	5.7	ug/L
Hexachlorobutadiene	ND	5.7	ug/L
Isopropylbenzene	ИD	29	ug/L
Isopropyl ether	ND	57	ug/L
o-Isopropyltoluene	ND	5.7	ug/L
Methylene chloride	ND	29	ug/L
4-Methyl-2-pentanone	ND	290	ug/L
Methyl tert-butyl ether	ND	29	ug/L
Naphthalene	ND	29	ug/L
n-Propylbenzene	ND	5.7	ug/L
Styrene	ND	5.7	ug/L
,1,1,2-Tetrachloroethane	ND	5.7	ug/L
,1,2,2-Tetrachloroethane	ND	5.7	ug/L
etrachloroethene	ND	5.7	ug/L
Coluene	ND	5.7	ug/L
.,2,3-Trichlorobenzene	ND	29	ug/L
1,2,4-Trichloro-	ND	29	ug/L
benzene			. –
,1,1-Trichloroethane	5.5 J	5.7	ug/L
,1,2-Trichloroethane	ND	5.7	ug/L
richloroethene	190	5.7	ug/L
richlorofluoromethane	ND	5.7	ug/L
,2,3-Trichloropropane	ND	5.7	ug/L
,1,2-Trichloro-	ND	5.7	ug/L
1,2,2-trifluoroethane			_
,2,4-Trimethylbenzene	ND	5.7	ug/L
,3,5-Trimethylbenzene	ND	5.7	ug/L
inyl chloride	ND	5.7	ug/L
ylenes (total)	ND	11	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
ibromofluoromethane	109	(73 - 12	2)
,2-Dichloroethane-d4	105	(61 - 12	8)
oluene-d8	101	(76 - 11	0)
-Bromofluorobenzene	96	(74 - 11	6)

J Estimated result. Result is less than RL.

### Client Sample ID: MW-4S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-013 Work Order #...: HQMGL1AA Matrix.....: WG

Date Sampled...: 11/17/05 16:38 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 8 Initial Wgt/Vol: 5 mL Final Wgt/Vol..: 5 mL

Method....: SW846 8260B

		REPORTIN	rG
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	200	ug/L
Acrolein	ND	40	ug/L
Acrylonitrile	ND	160	ug/L
Benzene	ND	8.0	ug/L
Bromobenzene	ND	8.0	ug/L
Bromodichloromethane	ND	8.0	ug/L
Bromoform	ND	8.0	ug/L
Bromomethane	ND	8.0	ug/L
2-Butanone	ND	200	ug/L
n-Butylbenzene	ND	8.0	ug/L
sec-Butylbenzene	ND	8.0	ug/L
tert-Butylbenzene	ND	8.0	ug/L
Carbon tetrachloride	ND	8.0	ug/L
Chlorobenzene	ND	8.0	ug/L
Chlorodibromomethane	ND	8.0	ug/L
Chloroethane	ND	8.0	ug/L
2-Chloroethyl vinyl ether	ИD	80	ug/L
Chloroform	ИD	8.0	ug/L
Chloromethane	ND	8.0	ug/L
2-Chlorotoluene	ND	8.0	ug/L
4-Chlorotoluene	ND	8.0	ug/L
1,2-Dibromo-3-chloro-	ND	8.0	ug/L
propane			
1,2-Dibromoethane	ND	8.0	ug/L
Dibromomethane	ND	40	ug/L
1,2-Dichlorobenzene	ND	8.0	ug/L
1,3-Dichlorobenzene	ND	8.0	ug/L
1,4-Dichlorobenzene	ND	8.0	ug/L
Dichlorodifluoromethane	ND	8.0	ug/L
1,1-Dichloroethane	ND	8.0	ug/L
1,2-Dichloroethane	ND	8.0	ug/L
cis-1,2-Dichloroethene	17	8.0	ug/L
trans-1,2-Dichloroethene	ND	8.0	ug/L
1,1-Dichloroethene	ND	8.0	ug/L
1,2-Dichloropropane	ND	8.0	ug/L
1,3-Dichloropropane	ND	8.0	ug/L
2,2-Dichloropropane	ND	8.0	ug/L
cis-1,3-Dichloropropene	ND	8.0	ug/L

# Client Sample ID: MW-4S

		DESCEMANCE	
PARAMETER	RESULT	REPORTING LIMIT	UNITS
trans-1,3-Dichloropropene	ND	8.0	
1,1-Dichloropropene	ND	8.0	ug/L
Ethylbenzene	ND	8.0	ug/L ug/L
Hexachlorobutadiene	ND	8.0	ug/L ug/L
Isopropylbenzene	ND ND	40	ug/L ug/L
Isopropylbenzene Isopropyl ether	ND	80	<del>-</del> :
p-Isopropyltoluene	ND	8.0	ug/L
Methylene chloride			ug/L
4-Methyl-2-pentanone	ND	40	ug/L
Methyl tert-butyl ether	ND	400	ug/L
Naphthalene	ND	40	ug/L
n-Propylbenzene	ND	40	ug/L
Styrene	ND	8.0	ug/L
1,1,1,2-Tetrachloroethane	ND	8.0	ug/L
1,1,2,2-Tetrachloroethane	ND	8.0	ug/L
retrachloroethene	ND	8.0	ug/L
retrachioloethene Toluene	ND	8.0	ug/L
	ND	8.0	ug/L
1,2,3-Trichlorobenzene 1,2,4-Trichloro-	ND	40	ug/L
benzene	ND	40	ug/L
l,1,1-Trichloroethane	5.6 J	8.0	uq/L
l,1,2-Trichloroethane	ND	8.0	uq/L
Trichloroethene	320	8.0	ug/L
Prichlorofluoromethane	ND	8.0	ug/L
1,2,3-Trichloropropane	ND	8.0	ug/L
l,1,2-Trichloro-	ND	8.0	ug/L
1,2,2-trifluoroethane			<del>_</del> .
,2,4-Trimethylbenzene	ND	8.0	ug/L
,3,5-Trimethylbenzene	ND	8.0	ug/L
/inyl chloride	ND	8.0	ug/L
(ylenes (total)	ND	16	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	110	(73 - 122)	
,2-Dichloroethane-d4	106	(61 - 128)	
Coluene-d8	101	(76 - 110)	
-Bromofluorobenzene	95	(74 - 116)	

J Estimated result. Result is less than RL.

# Client Sample ID: MW-5S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-014 Work Order #...: HQMGM1AA Matrix...... WG

Date Sampled...: 11/17/05 17:10 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

		REPORTING	
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ИD	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-5S

Lot-Sample #: A5K190219-014	Work Order #: HQMGM1AA	Matrix WG
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		REPORTIN	IG	
PARAMETER	RESULT	LIMIT	UNITS	
trans-1,3-Dichloropropene	ND	1.0	ug/L	
1,1-Dichloropropene	ND	1.0	ug/L	
Ethylbenzene	ND	1.0	ug/L	
Hexachlorobutadiene	ND	1.0	ug/L	
Isopropylbenzene	ND	5.0	ug/L	
Isopropyl ether	ND	10	ug/L	
p-Isopropyltoluene	ИĎ	1.0	ug/L	
Methylene chloride	0.26 J	5.0	ug/L	
4-Methyl-2-pentanone	ND	50	ug/L	
Methyl tert-butyl ether	ND	5.0	ug/L	
Naphthalene	ND	5.0	ug/L	
n-Propylbenzene	ND	1.0	ug/L	
Styrene	ND	1.0	ug/L	
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	
Tetrachloroethene	ND	1.0	ug/L	
Toluene	ND	1.0	ug/L	
1,2,3-Trichlorobenzene	ND	5.0	ug/L	
1,2,4-Trichloro-	ND	5.0	ug/L	
benzene			-	
1,1,1-Trichloroethane	ND	1.0	ug/L	
1,1,2-Trichloroethane	ND	1.0	ug/L	
Trichloroethene	6.3	1.0	ug/L	
Trichlorofluoromethane	ND	1.0	ug/L	
1,2,3-Trichloropropane	ИD	1.0	ug/L	
1,1,2-Trichloro-	ND	1.0	ug/L	
1,2,2-trifluoroethane			_	
1,2,4-Trimethylbenzene	ND	1.0	ug/L	
1,3,5-Trimethylbenzene	ND	1.0	ug/L	
Vinyl chloride .	ND	1.0	ug/L	
Xylenes (total)	ND	2.0	ug/L	
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Dibromofluoromethane	111	(73 - 12:	2)	
1,2-Dichloroethane-d4	108	{61 - 128	9)	
Toluene-d8	101	(76 - 110	0)	
4-Bromofluorobenzene	95	(74 - 116	5)	
NOTE(S):				

J Estimated result. Result is less than RL.

### Client Sample ID: MW-6S

### GC/MS Volatiles

Lot-Sample #...: A5K190219-015 Work Order #...: HQMGP1AA Matrix...... WG

Date Sampled...: 11/17/05 16:55 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method.....: SW846 8260B

PARAMETER         RESULT         LIMIT         UNITS           Acetone         ND         25         ug/L           Acrolein         ND         5.0         ug/L           Acrylonitrile         ND         20         ug/L           Benzene         0.27 J         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         1.0         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Acrolein         ND         5.0         ug/L           Acrylonitrile         ND         20         ug/L           Benzene         0.27 J         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         1.0         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Acrylonitrile ND 20 ug/L  Benzene 0.27 J 1.0 ug/L  Bromobenzene ND 1.0 ug/L  Bromodichloromethane ND 1.0 ug/L  Bromoform ND 1.0 ug/L  Bromomethane ND 1.0 ug/L  Bromomethane ND 1.0 ug/L  2-Butanone ND 25 ug/L  n-Butylbenzene ND 1.0 ug/L  sec-Butylbenzene ND 1.0 ug/L  carbon tetrachloride ND 1.0 ug/L  Chlorodibromomethane ND 1.0 ug/L
Benzene         0.27 J         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
n-Butylbenzene         ND         1.0         ug/L           sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
sec-Butylbenzene         ND         1.0         ug/L           tert-Butylbenzene         ND         1.0         ug/L           Carbon tetrachloride         ND         1.0         ug/L           Chlorobenzene         ND         1.0         ug/L           Chlorodibromomethane         ND         1.0         ug/L
tert-Butylbenzene ND 1.0 ug/L Carbon tetrachloride ND 1.0 ug/L Chlorobenzene ND 1.0 ug/L Chlorodibromomethane ND 1.0 ug/L
Carbon tetrachloride ND 1.0 ug/L Chlorobenzene ND 1.0 ug/L Chlorodibromomethane ND 1.0 ug/L
Chlorobenzene ND 1.0 ug/L Chlorodibromomethane ND 1.0 ug/L
Chlorodibromomethane ND 1.0 ug/L
45, 4
Chloroethane ND 1.0 ug/L
2-Chloroethyl vinyl ether ND 10 ug/L
Chloroform ND 1.0 ug/L
Chloromethane ND 1.0 ug/L
2-Chlorotoluene ND 1.0 ug/L
4-Chlorotoluene ND 1.0 ug/L
1,2-Dibromo-3-chloro- ND 1.0 ug/L
propane
1,2-Dibromoethane ND 1.0 ug/L
Dibromomethane ND 5.0 ug/L
1,2-Dichlorobenzene ND 1.0 ug/L
1,3-Dichlorobenzene ND 1.0 ug/L
1,4-Dichlorobenzene ND 1.0 ug/L
Dichlorodifluoromethane ND 1.0 ug/L
1,1-Dichloroethane ND 1.0 ug/L
1,2-Dichloroethane ND 1.0 ug/L
cis-1,2-Dichloroethene ND 1.0 ug/L
trans-1,2-Dichloroethene ND 1.0 ug/L
1,1-Dichloroethene ND 1.0 ug/L
1,2-Dichloropropane ND 1.0 ug/L
1,3-Dichloropropane ND 1.0 ug/L
2,2-Dichloropropane ND 1.0 ug/L
cis-1,3-Dichloropropene ND 1.0 ug/L

# Client Sample ID: MW-6S

# GC/MS Volatiles

Lot~Sample #: A5K190219-015	Work Order #: HQMGP1AA	Matrix WG
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		REPORTIN	IG
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/Ľ
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	uq/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro- benzene	ND	5.0	ug/L
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	3.6	1.0	uq/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			٥,
l,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Kylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	<del></del> .
Dibromofluoromethane	101	(73 - 12	2)
1,2-Dichloroethane-d4	90	(61 - 12 <del>)</del>	8)
Foluene-d8	102	(76 - 116	0)
1-Bromofluorobenzene	100	(74 - 116	5)
NOTE(S):			

J Estimated result. Result is less than RL.

### Client Sample ID: MW-7S

# GC/MS Volatiles

Lot-Sample #...: A5K190219-016 Work Order #...: HQMGQ1AA Matrix...... WG

Date Sampled...: 11/17/05 09:54 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTING	}
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	0.49 പ്	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	πā\r
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2~Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

# Client Sample ID: MW-7S

Lot-Sample #: A5K190219-016	Work Order #	: HOMGO1AA	Matrix:	WG
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		REPORTIN	īG
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
sopropylbenzene	ND	5.0	ug/L
sopropyl ether	ND	10	ug/L
o-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ИД	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
[etrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
.,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			_
l,1,1-Trichloroethane	0.39 J	1.0	ug/L
,1,2-Trichloroethane	ND	1.0	ug/L
Frichloroethene	25	1.0	ug/L
Frichlorofluoromethane	ND	1.0	ug/L
l,2,3-Trichloropropane	ND ·	1.0	ug/L
.,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			
i,2,4-Trimethylbenzene	ND	1.0	ug/L
,3,5-Trimethylbenzene	ND	1.0	ug/L
/inyl chloride	ND	1.0	ug/L
Yylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	pograma.am,
ibromofluoromethane	102	(73 - 12	2)
,2-Dichloroethane-d4	94	(61 - 12	8)
Coluene-d8	102	(76 - 11	0)
-Bromofluorobenzene	101	(74 - 11	< \

J Estimated result. Result is less than RL.

### Client Sample ID: MW-8S

# GC/MS Volatiles

Lot-Sample #...: A5K190219-017 Work Order #...: HQMGT1AA Matrix......: WG

Date Sampled...: 11/17/05 09:25 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

PARAMETER         RESULT         LIMIT         UNITS           Acetone         ND         25         ug/L           Acrolein         ND         5.0         ug/L           Acrylonitrile         ND         20         ug/L           Benzene         ND         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L           n-Butylbenzene         ND         1.0         ug/L
Acrolein         ND         5.0         ug/L           Acrylonitrile         ND         20         ug/L           Benzene         ND         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L
Acrylonitrile         ND         20         ug/L           Benzene         ND         1.0         ug/L           Bromobenzene         ND         1.0         ug/L           Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L
Benzene ND 1.0 ug/L Bromobenzene ND 1.0 ug/L Bromodichloromethane ND 1.0 ug/L Bromoform ND 1.0 ug/L Bromomethane ND 1.0 ug/L Bromomethane ND 1.0 ug/L 2-Butanone ND 25 ug/L
Bromobenzene ND 1.0 ug/L Bromodichloromethane ND 1.0 ug/L Bromoform ND 1.0 ug/L Bromomethane ND 1.0 ug/L Bromomethane ND 1.0 ug/L 2-Butanone ND 25 ug/L
Bromodichloromethane         ND         1.0         ug/L           Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L
Bromoform         ND         1.0         ug/L           Bromomethane         ND         1.0         ug/L           2-Butanone         ND         25         ug/L
Bromomethane ND 1.0 ug/L 2-Butanone ND 25 ug/L
2-Butanone ND 25 ug/L
n-Butylbenzene ND 1.0 ug/L
1.0 ug/ u
sec-Butylbenzene ND 1.0 ug/L
tert-Butylbenzene ND 1.0 ug/L
Carbon tetrachloride ND 1.0 ug/L
Chlorobenzene ND 1.0 ug/L
Chlorodibromomethane ND 1.0 ug/L
Chloroethane ND 1.0 ug/L
2-Chloroethyl vinyl ether ND 10 ug/L
Chloroform ND 1.0 ug/L
Chloromethane ND 1.0 ug/L
2-Chlorotoluene ND 1.0 ug/L
4-Chlorotoluene ND 1.0 ug/L
1,2-Dibromo-3-chloro- ND 1.0 ug/L
propane
1,2-Dibromoethane ND 1.0 ug/L
Dibromomethane ND 5.0 ug/L
1,2-Dichlorobenzene ND 1.0 ug/L
1,3-Dichlorobenzene ND 1.0 ug/L
1,4-Dichlorobenzene ND 1.0 ug/L
Dichlorodifluoromethane ND 1.0 ug/L
1,1-Dichloroethane ND 1.0 ug/L
1,2-Dichloroethane ND 1.0 ug/L
cis-1,2-Dichloroethene ND 1.0 ug/L
trans-1,2-Dichloroethene ND 1.0 ug/L
1,1-Dichloroethene ND 1.0 ug/L
1,2-Dichloropropane ND 1.0 ug/L
1,3-Dichloropropane ND 1.0 ug/L
2,2-Dichloropropane ND 1.0 ug/L
cis-1,3-Dichloropropene ND 1.0 ug/L

# Client Sample ID: MW-8S

# GC/MS Volatiles

Lot-Sample #: A5K190219-017 Wo	Work Order #:	HOMGT1AA	Matrix	WG
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		REPORTIN	IG .
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	αи	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	0.22 J	1.0	ug/L
l'Oluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			-5, -
1,1,1-Trichloroethane	0.41 J	1.0	ug/L
.,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	32	1.0	ug/L
Crichlorofluoromethane	ND	1.0	ug/L
.,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			- J,
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	uq/L
Vinyl chloride	ND	1.0	ug/L
(ylenes (total)	ND	2.0	ug/L
	DDD 45		
NI DOCAME	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	~ )
Dibromofluoromethane	98	(73 - 12)	
1,2-Dichloroethane-d4	92	(61 - 12)	
Foluene-d8	103	(76 - 11)	
4-Bromofluorobenzene	99	(74 - 11	5)
NOTE(S):			

J Estimated result. Result is less than RL.

## Client Sample ID: MW-9S

# GC/MS Volatiles

Lot-Sample #...: A5K190219-018 Work Order #...: HQMGV1AA Matrix...... wG

Date Sampled...: 11/16/05 15:05 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Method....: SW846 8260B

		REPORTIN	G
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ND	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro-	ND	1.0	ug/L
propane			
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ND	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L
			<i>5,</i> =

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# Client Sample ID: MW-9S

# GC/MS Volatiles

not bampie # Addisozis-olo work order #: HOMGVIAA Matrix	<b>ot-Sample #:</b> A5K190219-018	Work Order #: HOMGV1AA	Matrix WG
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		REPORTIN	īG
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ИD	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			-2, -
1,1,1-Trichloroethane	1.1	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	11	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			-5/ -
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
<u>-</u>			~3, <del>1</del>
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	
Dibromofluoromethane	101	(73 - 12:	<del></del> 21
1,2-Dichloroethane-d4	90	(61 - 12)	· ·
Toluene-d8	105	(76 - 110	
4-Bromofluorobenzene	102	(74 - 116	

STL North Canton

# Client Sample ID: MW-10S

# GC/MS Volatiles

Lot-Sample #...: A5K190219-019 Work Order #...: HQMGW1AA Matrix...... WG

Date Sampled...: 11/17/05 17:41 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

Method....: SW846 8260B

		REPORTIN	IG
PARAMETER	RESULT	LIMIT	UNITS
Acetone	ND	25	ug/L
Acrolein	ND	5.0	ug/L
Acrylonitrile	ND	20	ug/L
Benzene	ND	1.0	ug/L
Bromobenzene	ND	1.0	ug/L
Bromodichloromethane	ND	1.0	ug/L
Bromoform	ND	1.0	ug/L
Bromomethane	ND	1.0	ug/L
2-Butanone	ND	25	ug/L
n-Butylbenzene	ND	1.0	ug/L
sec-Butylbenzene	ND	1.0	ug/L
tert-Butylbenzene	ND	1.0	ug/L
Carbon tetrachloride	ND	1.0	ug/L
Chlorobenzene	ND	1.0	ug/L
Chlorodibromomethane	ND	1.0	ug/L
Chloroethane	ND	1.0	ug/L
2-Chloroethyl vinyl ether	ИD	10	ug/L
Chloroform	ND	1.0	ug/L
Chloromethane	ND	1.0	ug/L
2-Chlorotoluene	ND	1.0	ug/L
4-Chlorotoluene	ND	1.0	ug/L
1,2-Dibromo-3-chloro- propane	ND	1.0	ug/L
1,2-Dibromoethane	ND	1.0	ug/L
Dibromomethane	ND	5.0	ug/L
1,2-Dichlorobenzene	ND	1.0	ug/L
1,3-Dichlorobenzene	ND	1.0	ug/L
1,4-Dichlorobenzene	ND	1.0	ug/L
Dichlorodifluoromethane	ИD	1.0	ug/L
1,1-Dichloroethane	ND	1.0	ug/L
1,2-Dichloroethane	ND	1.0	ug/L
cis-1,2-Dichloroethene	ND	1.0	ug/L
trans-1,2-Dichloroethene	ND	1.0	ug/L
1,1-Dichloroethene	ND	1.0	ug/L
1,2-Dichloropropane	ИD	1.0	ug/L
1,3-Dichloropropane	ND	1.0	ug/L
2,2-Dichloropropane	ND	1.0	ug/L
cis-1,3-Dichloropropene	ND	1.0	ug/L

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# Client Sample ID: MW-10S

# GC/MS Volatiles

Lot-Sample #: A5K190219-019 Work Order #: HQMGW1AA Matrix WG	Lot-Sample #	: A5K190219-019	Work Order	#: HOMGW1AA	Matrix:	WG
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		REPORTING	<b>;</b>
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	ND	5,0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4~Trichloro-	ND	5.0	ug/L
benzene			5.
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	4.6	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			,
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	_
Dibromofluoromethane	103	(73 - 122)	- 
1,2-Dichloroethane-d4	93	(61 - 128)	ı
Toluene-d8	102	(76 - 110)	1
4-Bromofluorobenzene	100	(74 - 116)	

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# Client Sample ID: MW-11S

## GC/MS Volatiles

Lot-Sample #...: A5K190219-020 Work Order #...: HQMGX1AA Matrix...... WG

Date Sampled...: 11/17/05 17:19 Date Received..: 11/19/05
Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Method.....: SW846 8260B

		REPORTIN	1G	
PARAMETER	RESULT	LIMIT	UNITS	
Acetone	ND	25	ug/L	
Acrolein	ND	5.0	ug/L	
Acrylonitrile	ND	20	ug/L	
Benzene	ND	1.0	ug/L	
Bromobenzene	ND	1.0	ug/L	
Bromodichloromethane	ND	1.0	ug/L	
Bromoform	ND	1.0	ug/L	
Bromomethane	ND	1.0	ug/L	
2-Butanone	ND	25	ug/L	
n-Butylbenzene	ND	1.0	ug/L	
sec-Butylbenzene	ND	1.0	ug/L	
tert-Butylbenzene	ND	1.0	ug/L	
Carbon tetrachloride	ND	1.0	ug/L	
Chlorobenzene	ND	1.0	ug/L	
Chlorodibromomethane	ND	1.0	ug/L	
Chloroethane	ND	1.0	ug/L	
2-Chloroethyl vinyl ether	ND	10	ug/L	
Chloroform	ND	1.0	ug/L	
Chloromethane	ND	1.0	ug/L	
2-Chlorotoluene	ND	1.0	ug/L	
4-Chlorotoluene	ND	1.0	ug/L	
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	
propane				
1,2-Dibromoethane	ND	1.0	ug/L	
Dibromomethane	ИD	5.0	ug/L	
1,2-Dichlorobenzene	ND	1.0	ug/L	
1,3-Dichlorobenzene	ND	1.0	ug/L	
1,4-Dichlorobenzene	ND	1.0	ug/L	
Dichlorodifluoromethane	ND	1.0	ug/L	
1,1-Dichloroethane	ND	1.0	ug/L	
1,2-Dichloroethane	ND	1.0	ug/L	
cis-1,2-Dichloroethene	ND	1.0	ug/L	
trans-1,2-Dichloroethene	ND	1.0	ug/L	
1,1-Dichloroethene	ND	1.0	ug/L	
1,2-Dichloropropane	ND	1.0	ug/L	
1,3-Dichloropropane	ND	1.0	ug/L	
2,2-Dichloropropane	ND	1.0	ug/L	
cis-1,3-Dichloropropene	ND	1.0	ug/L	

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# Client Sample ID: MW-11S

# GC/MS Volatiles

Lot-Sample #: A5K190219-020 Work	Order #: HOMG	XIAA Matrix: WG
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		REPORTIN	G
PARAMETER	RESULT	LIMIT	UNITS
trans-1,3-Dichloropropene	ND	1.0	ug/L
1,1-Dichloropropene	ND	1.0	ug/L
Ethylbenzene	ND	1.0	ug/L
Hexachlorobutadiene	ND	1.0	ug/L
Isopropylbenzene	ND	5.0	ug/L
Isopropyl ether	ND	10	ug/L
p-Isopropyltoluene	ND	1.0	ug/L
Methylene chloride	ND	5.0	ug/L
4-Methyl-2-pentanone	ND	50	ug/L
Methyl tert-butyl ether	ND	5.0	ug/L
Naphthalene	иD	5.0	ug/L
n-Propylbenzene	ND	1.0	ug/L
Styrene	ND	1.0	ug/L
1,1,1,2-Tetrachloroethane	ND ·	1.0	ug/L
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L
Tetrachloroethene	ND	1.0	ug/L
Toluene	ND	1.0	ug/L
1,2,3-Trichlorobenzene	ND	5.0	ug/L
1,2,4-Trichloro-	ND	5.0	ug/L
benzene			J.
1,1,1-Trichloroethane	ND	1.0	ug/L
1,1,2-Trichloroethane	ND	1.0	ug/L
Trichloroethene	4.5	1.0	ug/L
Trichlorofluoromethane	ND	1.0	ug/L
1,2,3-Trichloropropane	ND	1.0	ug/L
1,1,2-Trichloro-	ND	1.0	ug/L
1,2,2-trifluoroethane			
1,2,4-Trimethylbenzene	ND	1.0	ug/L
1,3,5-Trimethylbenzene	ND	1.0	ug/L
Vinyl chloride	ND	1.0	ug/L
Xylenes (total)	ND	2.0	ug/L
			•
	PERCENT	RECOVERY	
SURROGATE	RECOVERY	LIMITS	_
Dibromofluoromethane	102	(73 - 122	)
1,2-Dichloroethane-d4	94	(61 - 128	)
Toluene-d8	103	(76 - 110	)
4-Bromofluorobenzene	101	(74 - 116	)

STL North Canton

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQ2MQ1AA Matrix...... WATER

MB Lot-Sample #: A5K290000-181

Prep Date....: 11/29/05 Final Wgt/Vol..: 5 mI

Prep Date....: 11/29/05 Final Wgt/Vol.: 5 mL
Analysis Date..: 11/29/05 Prep Batch #...: 5333181

Dilution Factor: 1 Initial Wgt/Vol: 5 mL

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Acetone	ND	25	ug/L	SW846 8260B
Acrolein	ND	5.0	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	25	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	SW846 8260B
propane			J.	
1,2-Dibromoethane	ND	1.0	uq/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	uq/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	uq/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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# GC/MS Volatiles

		REPORTI:	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Isopropyl ether	ND	10	ug/L	SW846 8260B
p-Isopropyltoluene	ИD	1.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-	ND	5.0	ug/L	SW846 8260B
benzene				
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	\$W846 8260B
1,1,2-Trichloro-	ND	1.0	ug/L	SW846 8260B
1,2,2-trifluoroethane				
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND ·	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS	<u></u>	
Dibromofluoromethane	100	(73 - 12	2)	
l,2-Dichloroethane-d4	93	(61 ~ 12	8)	
Toluene-d8	102	(76 - 11	0)	
4-Bromofluorobenzene	99	(74 - 11		

Calculations are performed before rounding to avoid round-off errors in calculated results.

## GC/MS Volatiles

Client Lot #...: A5K190219

MB Lot-Sample #: A5K300000-221

Work Order #...: HQ44N1AA

Matrix....: WATER

MB 100-5ample #: A5K500000-221

Analysis Date..: 11/29/05

Prep Date....: 11/29/05
Prep Batch #...: 5334221

. .....

Final Wgt/Vol..: 5 mL

Dilution Factor: 1 Ir

Initial Wgt/Vol: 5 mL

REPORTING

		KEPOKII	NG	
PARAMETER	RESULT	<u>LIMIT</u>	UNITS	METHOD
Acetone	ND	25	ug/L	SW846 8260B
Acrolein	ND	5.0	ug/L	SW846 8260B
Acrylonitrile	ND	20	ug/L	SW846 8260B
Benzene	ND	1.0	ug/L	SW846 8260B
Bromobenzene	ND	1.0	ug/L	SW846 8260B
Bromodichloromethane	ND	1.0	ug/L	SW846 8260B
Bromoform	ND	1.0	ug/L	SW846 8260B
Bromomethane	ND	1.0	ug/L	SW846 8260B
2-Butanone	ND	25	ug/L	SW846 8260B
n-Butylbenzene	ND	1.0	ug/L	SW846 8260B
sec-Butylbenzene	ND	1.0	ug/L	SW846 8260B
tert-Butylbenzene	ND	1.0	ug/L	SW846 8260B
Carbon tetrachloride	ND	1.0	ug/L	SW846 8260B
Chlorobenzene	ND	1.0	ug/L	SW846 8260B
Chlorodibromomethane	ND	1.0	ug/L	SW846 8260B
Chloroethane	ND	1.0	ug/L	SW846 8260B
2-Chloroethyl vinyl ether	ND	10	ug/L	SW846 8260B
Chloroform	ND	1.0	ug/L	SW846 8260B
Chloromethane	ND	1.0	ug/L	SW846 8260B
2-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
4-Chlorotoluene	ND	1.0	ug/L	SW846 8260B
1,2-Dibromo-3-chloro-	ND	1.0	ug/L	SW846 8260B
propane				
1,2-Dibromoethane	ND	1.0	ug/L	SW846 8260B
Dibromomethane	ND	5.0	ug/L	SW846 8260B
1,2-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,3-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
1,4-Dichlorobenzene	ND	1.0	ug/L	SW846 8260B
Dichlorodifluoromethane	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethane	ND	1.0	ug/L	SW846 8260B
1,2-Dichloroethane	ND	1.0	ug/L	SW846 8260B
cis-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
trans-1,2-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloroethene	ND	1.0	ug/L	SW846 8260B
1,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
1,3-Dichloropropane	ND	1.0	ug/L	SW846 8260B
2,2-Dichloropropane	ND	1.0	ug/L	SW846 8260B
cis-1,3-Dichloropropene	ND	1.0	$\mathtt{ug}/\mathtt{L}$	SW846 8260B
trans-1,3-Dichloropropene	ND	1.0	ug/L	SW846 8260B
1,1-Dichloropropene	ND	1.0	ug/L	SW846 8260B
Ethylbenzene	ND	1.0	ug/L	SW846 8260B

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# GC/MS Volatiles

		REPORTI	NG	
PARAMETER	RESULT	LIMIT	UNITS	METHOD
Hexachlorobutadiene	ND	1.0	ug/L	SW846 8260B
Isopropylbenzene	ND	5.0	ug/L	SW846 8260B
Isopropyl ether	ND	10	ug/L	SW846 8260B
p-Isopropyltoluene	ND	1.0	ug/L	SW846 8260B
Methylene chloride	ND	5.0	ug/L	SW846 8260B
4-Methyl-2-pentanone	ND	50	ug/L	SW846 8260B
Methyl tert-butyl ether	ND	5.0	ug/L	SW846 8260B
Naphthalene	ND	5.0	ug/L	SW846 8260B
n-Propylbenzene	ND	1.0	ug/L	SW846 8260B
Styrene	ND	1.0	ug/L	SW846 8260B
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2,2-Tetrachloroethane	ND	1.0	ug/L	SW846 8260B
Tetrachloroethene	ND	1.0	ug/L	SW846 8260B
Toluene	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichlorobenzene	ND	5.0	ug/L	SW846 8260B
1,2,4-Trichloro-	ND	5.0	ug/L	SW846 8260B
benzene				
1,1,1-Trichloroethane	ND	1.0	ug/L	SW846 8260B
1,1,2-Trichloroethane	ND	1.0	ug/L	SW846 8260B
Trichloroethene	ND	1.0	ug/L	SW846 8260B
Trichlorofluoromethane	ND	1.0	ug/L	SW846 8260B
1,2,3-Trichloropropane	ND	1.0	ug/L	SW846 8260B
l,1,2-Trichloro-	ND	1.0	ug/L	SW846 8260B
1,2,2-trifluoroethane				
1,2,4-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
1,3,5-Trimethylbenzene	ND	1.0	ug/L	SW846 8260B
Vinyl chloride	ND	1.0	ug/L	SW846 8260B
Xylenes (total)	ND	2.0	ug/L	SW846 8260B
	PERCENT	RECOVERY	Č	
SURROGATE	RECOVERY	LIMITS		
Dibromofluoromethane	106	(73 - 12	22)	
1,2-Dichloroethane-d4	103	(61 - 12	28)	
Toluene-d8	104	(76 - 11	LO)	
4-Bromofluorobenzene	99	(74 - 11	.6)	

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQ2MQ1AC-LCS Matrix..... WATER

LCS Lot-Sample#: A5K290000-181 HQ2MQ1AD-LCSD

Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 mL

	PERCENT	RECOVERY	1	RPD		
PARAMETER	RECOVERY	LIMITS	RPD 1	LIMITS	METHOD	
Benzene	98	(80 - 116)			SW846 8260B	
	99	(80 - 116)	1.7	(0~20)	SW846 8260B	
Chlorobenzene	100	(76 - 117)			SW846 8260B	
•	101	(76 - 117)	1.0	(0-20)	SW846 8260B	
1,1-Dichloroethene	112	(63 - 130)			SW846 8260B	
	113	(63 - 130)	0.94	(0-20)	SW846 8260B	
Toluene	100	(74 - 119)			SW846 8260B	
	101	(74 - 119)	1.4	(0-20)	SW846 8260B	
Trichloroethene	104	(75 - 122)			SW846 8260B	
	102	(75 - 122)	1.4	(0-20)	SW846 8260B	
		PERCENT	RECOVER	RΥ		
SURROGATE	_	RECOVERY	LIMITS			
Dibromofluoromethane		102	(73 - 3	122)		
		101	(73 - 1	L22)		
1,2-Dichloroethane-d4		93	(61 - 1	L28)		
		91	(61 - 1	128)		
Toluene-d8		104	(76 - 1	.10)		
		102	(76 - 1	.10)		
4-Bromofluorobenzene		106	(74 - 1	.16)		
		105	(74 - 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQ2MQ1AC-LCS Matrix...... WATER

LCS Lot-Sample#: A5K290000-181 HQ2MQ1AD-LCSD

Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 mL

	SPIKE	MEASURED	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
Benzene	20	20	ug/L	98		SW846 8260B
	20	20	ug/L	99	1.7	SW846 8260B
Chlorobenzene	20	20	ug/L	100		SW846 8260B
	20	20	ug/L	101	1.0	SW846 8260B
1,1-Dichloroethene	20	22	ug/L	112		SW846 8260B
	20	23	ug/L	113	0.94	SW846 8260B
Toluene	20	20	ug/L	100		SW846 8260B
	20	20	ug/L	101	1.4	SW846 8260B
Trichloroethene	20	21	ug/L	104		SW846 8260B
	20	20	ug/L	102	1.4	SW846 8260B
			PERCENT	RECOVERY		
SURROGATE			RECOVERY	LIMITS		
Dibromofluoromethane	_		102	(73 - 122	<u> </u>	
			101	(73 - 122	•	
1,2-Dichloroethane-d4			93	(61 - 128	` .	
			91	(61 - 128	•	
Toluene-d8			104	(76 - 110	•	
			102	(76 - 110	•	
4-Bromofluorobenzene			106	(74 - 116	•	
·			105	(74 - 116	•	
NOTE(S):						

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQ44N1AC-LCS Matrix..... WATER

LCS Lot-Sample#: A5K300000-221 HQ44N1AD-LCSD

Prep Date...: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 1 Final Wgt/Vol..: 5 mL

Initial Wgt/Vol: 5 mL

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Benzene	99	(80 - 116)			SW846 8260B
	99	(80 - 116)	0.53	(0-20)	SW846 8260B
Chlorobenzene	96	(76 - 117)			SW846 8260B
	99	(76 - 117)	3.4	(0-20)	SW846 8260B
1,1-Dichloroethene	100	(63 - 130)			SW846 8260B
	106	(63 - 130)	5.9	(0-20)	SW846 8260B
Toluene	100	(74 - 119)			SW846 8260B
	104	(74 - 119)	3.4	(0-20)	SW846 8260B
Trichloroethene	102	(75 - 122)			SW846 8260B
	103	(75 - 122)	1.2	(0-20)	SW846 8260B
		PERCENT	RECOV	ERY	
SURROGATE		RECOVERY	LIMIT	S	
Dibromofluoromethane		105	(73 -	122)	
		106	{73 -	122)	
1,2-Dichloroethane-d4		99	(61 -	128)	
		103	(61 -	128)	
Toluene-d8		103	(76 -	110)	
		106	(76 ~	110)	
4-Bromofluorobenzene		103	(74 -	116)	
•		103	{74 -	116)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

## LABORATORY CONTROL SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQ44N1AC-LCS Matrix...... WATER

Final Wgt/Vol..: 5 mL

LCS Lot-Sample#: A5K300000-221 HQ44N1AD-LCSD

Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Initial Wgt/Vol: 5 mL

Dilution Factor: 1

	SPIKE	MEASURED	)	PERCENT		
PARAMETER	AMOUNT	AMOUNT	UNITS	RECOVERY	RPD	METHOD
Benzene	10	9.9	ug/L	99		SW846 8260B
	10	9.9	ug/L	99	0.53	SW846 8260B
Chlorobenzene	10	9.6	ug/L	96		SW846 8260B
	10	9.9	ug/L	99	3.4	SW846 8260B
1,1-Dichloroethene	10	10	ug/L	100		SW846 8260B
	1.0	11	ug/L	106	5.9	SW846 8260B
Toluene	10	10	ug/L	100		SW846 8260B
	10	10	ug/L	104	3.4	SW846 8260B
Trichloroethene	10	10	ug/L	102		SW846 8260B
	10	10	ug/L	103	1.2	SW846 8260B
			PERCENT	RECOVERY		
SURROGATE			RECOVERY	LIMITS		
Dibromofluoromethane	_		105	(73 - 122	<u> </u>	
			106	(73 - 122	•	
1,2-Dichloroethane-d4			99	(61 - 128	)	
			103	(61 - 128		
Toluene-d8			103	(76 ~ 110	}	
			106	(76 - 110	•	
4-Bromofluorobenzene			103	(74 - 116		
			103	(74 - 116	•	
NOTE(S):						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQMHE1AC-MS Matrix....: WATER

MS Lot-Sample #: A5K190223-007 HQMHE1AD-MSD

Date Sampled...: 11/16/05 18:10 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 22.22 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

	PERCENT	RECOVERY		RPD	
PARAMETER	RECOVERY	LIMITS	RPD	LIMITS	METHOD
Benzene	99	(78 - 118)			SW846 8260B
	101	(78 - 118)	1.7	(0-20)	SW846 8260B
Chlorobenzene	101	(76 - 117)			SW846 8260B
	99	(76 - 117)	1.4	(0-20)	SW846 8260B
1,1-Dichloroethene	110	(62 - 130)			SW846 8260B
	109	(62 - 130)	0.65	(0-20)	SW846 8260B
Toluene	101	(70 - 119)			SW846 8260B
	100	(70 - 119)	1.6	(0-20)	SW846 8260B
Trichloroethene	101	(62 - 130)			SW846 8260B
	102	(62 - 130)	1.2	(0-20)	SW846 8260B
		PERCENT		RECOVERY	
SURROGATE	_	RECOVERY		LIMITS	
Dibromofluoromethane		98		(73 - 122	)
		102		(73 - 122	)
1,2-Dichloroethane-d4		91		(61 - 128	)
		95		(61 - 128	)
Toluene-d8		105		(76 - 110	)
		102		(76 - 110	)
4-Bromofluorobenzene		107		(74 - 116	)
		104		(74 - 116	)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQMHE1AC-MS Matrix..... WATER

MS Lot-Sample #: A5K190223-007 HQMHE1AD-MSD

Date Sampled...: 11/16/05 18:10 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5333181

Dilution Factor: 22.22 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	AMOUNT	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
Benzene	83	440	520	ug/L	99		SW846 8260B
	83	440	530	ug/L	101	1.7	SW846 8260B
Chlorobenzene	ND	440	450	ug/L	101		SW846 8260B
	MD	440	440	ug/L	99	1.4	SW846 8260B
1,1-Dichloroethene	ND	440	490	ug/L	110		SW846 8260B
	ND	440	480	ug/L	109	0.65	SW846 8260B
Toluene	68	440	520	ug/L	101		SW846 8260B
	68	440	510	ug/L	100	1.6	SW846 8260B
Trichloroethene	ND	440	450	ug/L	101		SW846 8260B
	ND	440	450	ug/L	102	1.2	SW846 8260B

	PERCENT	RECOVERY		
SURROGATE	RECOVERY	LIMITS		
Dibromofluoromethane	98	(73 - 122)		
	102	(73 - 122)		
1,2-Dichloroethane-d4	91	(61 - 128)		
	95	(61 - 128)		
Toluene-d8	105	(76 - 110)		
	102	(76 - 110)		
4-Bromofluorobenzene	107	(74 - 116)		
	104	(74 - 116)		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

## MATRIX SPIKE SAMPLE EVALUATION REPORT

# GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQMGL1AC-MS Matrix...... WG

MS Lot-Sample #: A5K190219-013 HQMGL1AD-MSD

Date Sampled...: 11/17/05 16:38 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 8 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHO:	D
Benzene	101	(78 - 118)		· · · · · · · · · · · · · · · · · · ·	SW846	8260B
	98	(78 - 118)	2.9	(0-20)	SW846	8260B
Chlorobenzene	. 97	(76 - 117)			SW846	8260B
	95	(76 - 117)	1.3	(0-20)	SW846	8260B
1,1-Dichloroethene	109	(62 - 130)			SW846	8260B
	100	(62 - 130)	9.1	(0-20)	SW846	8260B
Toluene	102	(70 - 119)			SW846	8260B
	99	(70 ~ 119)	2.4	(0-20)	SW846	8260B
Trichloroethene	56 a	(62 - 130)			SW846	8260B
	27 a	(62 - 130)	6.5	(0-20)	SW846	8260B
		PERCENT		RECOVERY		
SURROGATE		RECOVERY		LIMITS		
Dibromofluoromethane	<del></del>	107		(73 - 122	<del>_</del>	
		105		(73 - 122	}	
1,2-Dichloroethane-d4		101		(61 - 128	)	
		101		(61 - 128		
Toluene-d8		106		(76 - 110	=	
		107		(76 - 110		
4-Bromofluorobenzene		103		(74 - 116	•	
		105		(74 - 116	•	

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.

## MATRIX SPIKE SAMPLE DATA REPORT

## GC/MS Volatiles

Client Lot #...: A5K190219 Work Order #...: HQMGL1AC-MS Matrix...... WG

MS Lot-Sample #: A5K190219-013 HQMGL1AD-MSD

Date Sampled...: 11/17/05 16:38 Date Received..: 11/19/05 Prep Date....: 11/29/05 Analysis Date..: 11/29/05

Prep Batch #...: 5334221

Dilution Factor: 8 Initial Wgt/Vol: 5 mL Final Wgt/Vol.: 5 mL

	SAMPLE	SPIKE	MEASRD		PERCNT		
PARAMETER	TRUOMA	AMT	AMOUNT	UNITS	RECVRY	RPD	METHOD
Benzene	ND	80	80	ug/L	101		SW846 8260B
	ND	80	78	ug/L	98	2.9	SW846 8260B
Chlorobenzene	ND	80	77	ug/L	97		SW846 8260B
	ND	80	76	ug/L	95	1.3	SW846 8260B
1,1-Dichloroethene	ND	80	87	ug/L	109		SW846 8260B
	ND	80	80	ug/L	100	9.1	SW846 8260B
Toluene	ND	80	82	ug/L	102		SW846 8260B
	ND	80	80	ug/L	99	2.4	SW846 8260B
Trichloroethene	320	80	360	ug/L	56 a		SW846 8260B
	320	80	340	22CT.	27 2	<i>c</i> =	CMOVE OUTUD

	PERCENT	RECOVERY
SURROGATE	RECOVERY	LIMITS
Dibromofluoromethane	107	(73 - 122)
	105	(73 ~ 122)
1,2-Dichloroethane-d4	101	(61 - 128)
	101	(61 ~ 128)
Toluene-d8	106	(76 - 110)
	107	(76 - 110)
4-Bromofluorobenzene	103	(74 - 116)
	105	(74 - 116)

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

a Spiked analyte recovery is outside stated control limits.



# END OF REPORT

# Phase I Environmental Site Assessment

EaglePicher Automotive Hillsdale Division Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

APRIL 30, 2004



Naun/Shawin

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Robert A. Ferree, CPG Vice President

# Phase I Environmental Site Assessment

EaglePicher Automotive Hillsdale Division Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

Prepared for:

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Prepared by: ARCADIS G&M of Michigan, LLC 25200 Telegraph Road Southfield Michigan 48034 Tel 248 936 8000 Fax 248 936 8111

Our Ref.: SF003152.0002.00007

Date: April 30, 2004

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- D Historic Topographic Maps
- E Asbestos and Lead Building Inspection Report
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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

# **Executive Summary**

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) of the EaglePicher Industrial Drive Plant (subject property) located at 221 Industrial Drive in Hillsdale, Michigan. The Phase I ESA site reconnaissance was conducted on January 7, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records.

The subject property, situated at the southeastern intersection of Industrial Drive and Uran Street in Hillsdale, Michigan consists of an approximately 92,500-square foot manufacturing building on approximately 6 acres of land (shared with EaglePicher's Rubber Plant at 215 Industrial Drive). EaglePicher manufactures steel, aluminum, and cast iron anti-vibration dampers (automotive parts) for the automotive industry. Operations have remained unchanged since the subject property was constructed and developed in the early-1970s.

ARCADIS assessment revealed the following recognized environmental conditions (RECs) in connection with the current and historic operations conducted at the subject property and adjacent properties:

- Three LUST incidents have occurred at the subject property, and each incident remains 'open' according to the Michigan Department of Environmental Quality (MDEQ).
- Two central coolant systems that utilize below-grade trenches to transport coolant to various machines located throughout the plant are installed at the subject property. The integrity of these below-grade structures could not be verified during the site reconnaissance. According to EaglePicher, the coolant system is no longer in use and is awaiting closure.
- There is a reinforced concrete containment area (of unknown capacity) in the chip bay room. This containment area is used for dumping dirty mop water, coolant and oil from minor spills within the building and also collects coolant draining from the metal chip roll-off containers. When this containment area is full, it is pumped to

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

the wastewater/coolant aboveground storage tank (AST) in the building where it is stored while awaiting off-site disposal. ARCADIS could not verify the integrity of this containment area during the site reconnaissance.

Based on ARCADIS' review of the information contained within the EDR report, the EaglePicher Rubber Plant site at 215 Industrial Drive located upgradient and adjacent to the subject property poses an environmental risk to the subject property because of the documented environmental impacts as a result of a release of trichloroethylene (TCE) to the subsurface.

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

 The white sink undercoating in the kitchen/break area was found to contain asbestos, and the fire door and frame were assumed to contain asbestos by Fibertec.

Analytical results of recent groundwater samples collected from monitoring wells located on the subject property indicate concentrations of TCE and tetrachloroethylene (PCE) above the MDEQ residential cleanup criteria. According to the MDEQ, the subject property meets the requirements to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, of 1994, as amended) for groundwater impacts resulting from a TCE release at the Rubber Plant property.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

## 1. Introduction

ARCADIS G&M of Michigan, LLC (ARCADIS) was retained by EaglePicher Automotive (EaglePicher) to conduct a Phase I Environmental Site Assessment (ESA) of EaglePicher's Industrial Drive Plant (subject property) located at 221 Industrial Drive in Hillsdale, Michigan. The Phase I ESA site reconnaissance was conducted on January 7, 2004 and was performed in accordance with the American Society for Testing and Materials (ASTM) Standard E1527-00, *Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The Phase I ESA included a visual inspection of the property, observation of adjacent properties, an environmental regulatory agency records review, and a review of available historical documents and available facility records.

## 1.1 Purpose

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

# 1.2 Detailed Scope of Services

The Scope of Services for this ESA is set forth in a letter from ARCADIS to Mr. Dave Krall of EaglePicher dated November 25, 2003 and was conducted pursuant to a Master Services Agreement between ARCADIS and EaglePicher Automotive. This Scope of Services calls for the ESA to be conducted in accordance with ASTM Standard E1527-00, *Practice for Environmental Site Assessments* and to comprise the following specific elements:

- Regulatory database search;
- Site reconnaissance, review of facility records, and interview of local plant personnel;
- Review for federal, state, and local environmental liens against the property;
- Qualitative review of potential asbestos-containing materials (ACMs) and leadbased paints(LBP); and
- Ownership, polychlorinated biphenyl (PCB) status, and condition of electrical transformers, capacitors, switches, etc.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

The purpose of the ESA is to investigate conditions at the facility and identify any Recognized Environmental Conditions (RECs). A REC as defined in the ASTM standard is as follows:

"The presence or likely presence of any hazardous substances or petroleum products on property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

As part of the Phase I ESA, ARCADIS reviewed readily available regulatory information to assess the possible risk for environmental liabilities from regulatory action, hazardous materials spills, or documented hazardous waste disposal at the subject property or nearby properties (i.e., properties located within ASTM-specified search distances from the subject property). Records of compliance with applicable environmental regulations and permits from the Michigan Department of Environmental Quality (MDEQ), City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency were reviewed. These searches were conducted via the Internet and telephone calls.

The site inspection included an assessment of the property with the objectives of identifying releases, past releases, or material threat of releases of hazardous substances or petroleum products (or evidence of such) at the site. This physical inspection included, if applicable, but was not limited to, the following items:

- Indications of spills or releases.
- Evidence of on-site disposal practices.
- Chemical, solid waste, and other environmental management practices.
- Current or past usage of underground storage tanks (USTs) and aboveground storage tanks (ASTs).

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

- Adjacent land uses.
- Identification of physiographic features.
- Wastewater treatment.
- Evidence of standing surface water.
- Sources of drinking water.
- Visual indications of equipment that may contain PCBs, if applicable.
- Potential sources of contamination or other environmental concerns.

ARCADIS also performed a limited, visual reconnaissance for suspected ACMs by evaluating only readily accessible materials limited to general observations made during the site reconnaissance. Material that was hidden, such as behind walls or ceilings, was not evaluated. The limited visual reconnaissance was not performed in accordance with the United States Environmental Protection Agency (USEPA) regulations implementing the Asbestos Hazard Emergency Response Act (40 Code of Federal Regulations [CFR] 763.80 et seq.) or with the U.S. Occupational Safety and Health Administration (OSHA) *General Industry Standard: Occupational Exposure to Asbestos* (29CFR 1910.1001).

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec Industrial Hygiene Services (Fibertec) of Holt, Michigan at the subject property on March 10, 2004. Fibertec's results are discussed in Section 5.8.

### 1.3 Significant Assumptions

ARCADIS has assumed that the information sources utilized for this assessment provide complete and accurate information. Evaluations presented in this report are based exclusively on information provided by EaglePicher, the site representative, local agency personnel, available public records, and observations made during the site visit.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

## 1.4 Limitations and Exceptions

This Phase I ESA is limited in nature and should not be construed to be a characterization of environmental regulatory compliance or of conditions above or below grade. ARCADIS performed the ESA by focusing on hazardous materials and petroleum usage, storage, and disposal areas.

The Phase I evaluations presented in this limited environmental assessment are based on information provided by EaglePicher personnel, available site records, state file records, readily accessible historical documents, and observations made during the site reconnaissance. In preparing this report, ARCADIS has accepted as true the information provided by EaglePicher personnel on current and historical operations of the facility. ARCADIS warrants that the services performed were conducted in a competent and professional manner in accordance with sound consulting practices and procedures. ARCADIS cannot warrant the actual site conditions described in this report beyond matters amenable to visual confirmation within the limits of this site assessment program. ARCADIS makes no express or implied representation or warranty that this document or the information contained herein is fit for a particular purpose, nor does ARCADIS make any representation or warranty regarding the accuracy or reliability of information or documents provided by other parties that are contained or relied on herein. This document and the information, findings, opinions, and recommendations herein have been prepared for the benefit only of EaglePicher, and no third party is intended as a beneficiary or intended to rely on this document or the information herein unless otherwise expressly stated in writing by ARCADIS.

## 1.5 Special Terms and Conditions

No special terms and conditions were imposed on this ESA.

## 1.6 Reliance

There are no third party rights or benefits conferred under this report. Use of this report is strictly limited to EaglePicher, the only party to whom ARCADIS intends to confer any rights. Any use of the contents of this report by any third party is at the sole risk of that party.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

## 1.7 Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work dated November 25, 2003.

In addition, a comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec at the subject property on March 10, 2004. Fibertec's results are discussed in Section 5.8.

## 2. Site Description

The information below was obtained through an inspection of the subject property conducted by Ms. Dawn Sharvin of ARCADIS on January 7, 2004. Photographs taken by ARCADIS during the site walk-through of the subject property are presented in Appendix A.

## 2.1 Location and Legal Description

The subject property, approximately 6.8 acres in size, is situated at the southeastern intersection of Industrial Drive and Uran Street in Hillsdale, Michigan (see Figure 1). The City of Hillsdale is located in Hillsdale County in southern Michigan. The subject property is located in Section 21, Township 6S, Range 03W at latitude 41°54′57.2"(north) and longitude 84°37′35.0" (west).

According to the City of Hillsdale Assessor's Office, the parcel number for the subject property is 006-221-276-001, and the property is zoned I-1, light industrial usage. The parcel consists of the subject property and the 215 Industrial Drive plant (EaglePicher's Rubber Plant). The legal description is listed below:

A parcel of land, lying in the East ½ of the Northeast ¼ of Section 21, Town 6 South, Range 3 West, City of Hillsdale, Hillsdale County, Michigan. Described as commencing at the East ¼ corner of said Section 21; Thence N 00°03'30" W, along the East line of said Section 21, a distance of 496.49 feet, to the point of beginning. Thence N 89°39'45" W, a distance of 600.55 feet; thence N 00°03'30" W, parallel with the east line of said Section 21, a distance of 496.48 feet; thence S 89°39'45" E, a distance of 600.55 feet, to the east line of said Section 21; thence S 00°03'30" E, along the east line of said Section 21, a distance of 496.48 feet to the point of beginning; subject to restrictions, conditions and easements of record; containing 6.8 acres. Also, a right-of-way

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

for the purpose of ingress and egress to the above described property, described as: beginning at the Northeast corner, of the above described parcel; thence N 89°39'45" W, along the north line of the above described property, a distance of 600.55 feet; thence N 00°03'30" W, a distance of 66.00 feet; thence S 89°39'45" E, a distance of 600.55 feet; thence S 00°03'30" E, a distance of 66.00 feet, to the point of beginning.

It is a condition of the within conveyance that said premises may be used only for industrial or commercial purposes and that all construction thereon facing Highway M-99, Mechanic Street, Arch Avenue, Uran Avenue and any future streets and avenues, shall be of masonry or steel construction and that no tavern, motel, public hall, drive-in theatre or restaurant, slaughterhouse, tannery or rendering plant, or other building for the carrying on of any noxious, dangerous or offensive trade or business shall be erected thereon, and that said premises shall not be used for any of the above-mentioned purposes nor for any hospital, cemetery, asylum, or as a junkyard. L-454-90 Ward 2.

## 2.2 Site Vicinity General Characteristics

The subject property is located within the Hillsdale Industrial Park (an area of industrial development) and is situated west of Carleton Road (M-99) and the St. Joseph River.

## 2.3 Current Use of the Subject Property

At the subject property, EaglePicher manufactures steel, aluminum, and cast iron antivibration dampers (automotive parts) for the automotive industry. The subject property employs approximately 200 employees and is in operation 24 hours a day (three 8-hour shifts), five days a week.

## 2.4 Historic Use of the Subject Property

According to Ms. Stacy Greene, Environmental Health and Safety (EHS) Manager at the subject property, site operations have remained unchanged since the building was constructed in the early-1970s. Prior to the early-1970s, the subject property was undeveloped and used as agricultural farm fields.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

## 2.5 Description of Structures

The subject property currently consists of one industrial plant measuring approximately 92,500 square feet. The building, constructed in the early-1970s, is one story in height and consists of shop, manufacturing, and office areas. The main office area is located along the northern side of the building. However, smaller offices are also located throughout the manufacturing area. The building is constructed with a concrete slab-on-grade foundation, steel column and beam superstructure, cinder block walls, and flat roofs. Building exterior finishes included paint, decorative concrete masonry units, and sheet metal siding.

Grade-level driveways on the northern, eastern, and western sides of the building serve the building. Concrete and asphalt grade parking areas are present on the western and southern sides of the buildings. Vegetated, grass areas are present along each side of the building. Truck-loading docks are present on the western and southern sides of the plant.

According to the City of Hillsdale Building Department, the following permits were obtained at the subject property:

- Permit No. 8-611, dated June 4, 1976, for an industrial building addition measuring 120 feet wide, by 200 feet long, and 18 feet in height.
- Permit No. 8-687, dated May 25, 1977, for building addition measuring 90 feet wide, by 200 feet long, and 18 feet in height.
- Permit No. 8-967, dated May 25, 1980, for the construction of a roof over the chip bin area.
- Permit No. 9-353, dated April 6, 1984, for the construction of a foundation for an addition to the plant.
- Permit No. 9-431, dated October 22, 1984, for the construction of an office addition.
- Permit No. 9-449, dated February 28, 1985, for the construction of a sign for the office addition (Permit No. 9-431).
- Permit No. 91-035, dated May 31, 1991, for the construction of an office addition.

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# Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

 Permit No. 98-023, dated February 19, 1998, for the construction of a building addition measuring 2,160 square feet.

## 2.6 Current Uses of the Adjoining Properties

The subject property is surrounded by various industrial warehouses including Teleflex Automotive Group (an automotive parts manufacturer); EaglePicher's Tech Center (263 Industrial Drive); EaglePicher's Rubber Plant (215 Industrial Drive); ACT Laboratories, Inc. (manufacturer of automotive paint test panels); Dow Automotive/Essex Specialty Products (supplier of automotive adhesives, sealants, and body-engineered systems); and Clark Electrical. Agricultural fields are located in the western half of the Hillsdale Industrial Park.

## 3. User Provided Information

## 3.1 Title Records

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

## 3.2 Environmental Liens

No agreements with the any third party or the regulatory agencies having jurisdiction of the site and concerning EaglePicher's environmental commitments were provided by EaglePicher nor were any discovered by ARCADIS during the Phase I ESA site reconnaissance activities.

According to the Hillsdale County Health Department, no environmental liens exist on the subject property.

## 3.3 Specialized Knowledge

ARCADIS understands that EaglePicher currently conducts quarterly groundwater sampling and operates a groundwater pump-and-treat system as a result of a 1985 release of trichloroethylene (TCE) to the subsurface at the adjacent property; the EaglePicher Rubber Plant. ARCADIS does not have any other specialized knowledge of any consent orders or other environmental enforcement actions against the subject property.

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In addition, a deed restriction imposed on the Hillsdale Industrial Park limits the site usage to industrial or commercial purposes.

According to Mr. Douglas Rommeck, Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher, the Rubber Plant is has received certification under the ISO (International Organization for Standardization) 14001 system.

#### 3.4 Valuation Reduction for Environmental Issues

EaglePicher indicates that they are unaware of any valuation reduction of the subject site resulting from any current or historical environmental issues.

## 3.5 Owner, Property Manager, and Occupant Information

The subject property is currently owned and operated by EaglePicher. Prior to EaglePicher, the subject property was owned and operated by Hillsdale Tool & Manufacturing Company who was subsequently purchased by EaglePicher.

## 3.6 Reason for Performing Phase I Environmental Site Assessment

EaglePicher (the user of this report) indicates the results of this ESA will be used to evaluate potential environmental liabilities associated with the subject property.

#### 4. Records Review

To obtain a historical perspective of the subject property, and the regulatory status of the subject property and neighboring facilities, the following resources were ordered and/or reviewed:

- State and federal regulatory database records,
- Fire insurance maps,
- Historical aerial photographs, and
- Historic topographic maps.

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## 4.1 State and Federal Regulatory Database Records

#### 4.1.1 Environmental Record Sources

ARCADIS retained Environmental Data Resources, Inc. (EDR) of Southport, Connecticut to perform an ASTM Phase I database search of state and federal environmental records. A regulatory database review was performed to obtain information about the use of the subject property, surrounding land use, and the potential for off-site environmental impacts to the subject property. The following federal and state databases were searched.

Federal Databases (Standard):

- National Priority List (NPL)
- Proposed NPL
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)/No Further Remedial Action Planned (NFRAP)
- Corrective Action Reports (CORRACTS)
- Resource Conservation and Recovery Information System (RCRIS)-Transportation, Storage, Disposal (TSD)
- RCRIS Large Quantity Generator (LQG)
- RCRIS Small Quantity Generator (SQG)
- Emergency Response Notification System (ERNS)

State of Michigan Databases (Standard):

- State Hazardous Waste Site (SHWS)
- State Landfill (LF)
- Leaking UST (LUST)

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- USTs
- Baseline Environmental Assessment (BEA)
- Historic LF
- USTs on Indian Land
- ARCADIS reviewed federal and state environmental regulatory agency databases in addition to the ones required by the ASTM Standard E 1527-00 as provided by EDR. The report produced by EDR is included as Appendix B. The following databases were searched:

Federal Databases (Supplemental):

- Superfund (CERCLA) Consent Decrees (CONSENT)
- Records of Decision (ROD)
- National Priority List Deletions (Delisted NPL)
- Facility Index System/ Facility Identification Initiative Program Summary Report (FINDS)
- Hazardous Materials Information Reporting System (HMRIS)
- Material Licensing Tracking System (MLTS)
- Mines Master Index File (MINES)
- Federal Superfund Liens (NPL Liens)
- PCB Activity Database System (PADS)
- Department of Defense Sites (DOD)
- RCRA Administrative Action Tracking System (RAATS)
- Toxic Chemical Release Inventory System (TCRIS)

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- Toxic Substances Control Act (TSCA)
- Section 7 Tracking Systems (SSTS)
- Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA)/TSCA Tracking System (FTTS)
- US Brownfields (a listed of Brownfields sites)

State of Michigan Databases (Supplemental):

- ASTs
- SHWS Deletions (DEL SHWS)
- Pollution Emergency Alerting System (PEAS)

The objective of the regulatory database review is to identify those sites that use, store, treat, generate, dispose of, or otherwise handle hazardous materials, or have been listed for known or suspected releases of hazardous substances. A copy of the EDR report is included as Appendix B.

#### 4.1.1.1 Subject Property Findings

The subject property, listed 'D II', 'Daisy Parts #2', and 'Hillsdale Tool & Mfg. Company Inc., Daisy Parts Plant 2' was listed in the following databases:

- UST: According to information contained within the EDR report, the following two USTs are registered at the subject property:
  - 10,000-gallon UST containing water soluble coolant. Installed on January 17, 1980 and removed from the ground (date not specified).
  - 6,000-gallon UST containing used oil. Installed on January 17, 1980 and removed from the ground (date not specified).
- LUST: Three LUST incidents have occurred at the subject property: one each on January 10, 1980; April 25, 1990; and March 23, 1995. Each incident remains open according to the MDEQ. No additional information was included in the EDR report.

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- DEL SHWS: According to information contained within the EDR report, the site has been deleted from the SHWS database.
- RCRIS SQG: According to the information contained within the EDR report, no violations have been recorded against the subject property.
- FINDS: This database lists 'other pertinent environmental activity has been identified at the site'. This activity includes being listed on the AIRS/AIRS Facility Subdivision (AIRS/AFS), RCRA Information System (RCRA INFO), and TRIS.

Based on ARCADIS' review of the information contained within the EDR report, the three LUST incidents at the subject property that are considered 'open' according to the MDEQ constitute a REC.

#### 4.1.1.2 Surrounding Properties

The following properties were identified on the databases found in the EDR report. Additional information regarding these sites can be found in the EDR report in Appendix B.

- Hillsdale Tool and Rubber, 215 Industrial Drive, Hillsdale, Michigan: SHWS
- Eagle-Picher Automotive Rubber Plt, 215 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- EP HT Div Technical Ctr, 263 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- Bose Corporation, 260 Industrial Drive, Hillsdale, Michigan: RCRIS-SQG, FINDS
- ACT Laboratories Incorporated, 273 Industrial Drive, Hillsdale, Michigan: RCRIS-LQG, FINDS
- Bilcor Plastics, 2250 Mechanic Road, Hillsdale, Michigan: UST
- Eaton Technologies, 240 Uran Street, Hillsdale, Michigan: RCRIS SQG, FINDS
- Essex Specialty Products, 190 Uran Street, Hillsdale, Michigan: DEL SHWS

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- Former Bilcor Plastics Plant, 411 Carleton Road, Hillsdale, Michigan: UST, LUST, SHWS
- Playford Dodge Sales Inc., N M-99, Hillsdale, Michigan: UST, LUST

Based on ARCADIS' review of the information contained within the EDR report, the EaglePicher Rubber Plant at 215 Industrial Drive, located adjacent to and upgradient (the assumed groundwater flow direction is to the east/northeast toward the St. Joseph River) of the subject property, poses an environmental risk to the subject property because of the documented chlorinated solvent (i.e., TCE, tetrachloroethylene [PCE]) impacts to the subsurface and its designation as a SHWS by the MDEQ.

## 4.2 Freedom of Information Act Request

ARCADIS performed a Freedom of Information Act (FOIA) request of the MDEQ files that pertain to the three LUST incidents at the subject property. Information obtained from the MDEQ is summarized below:

- Information regarding the January 10, 1980 LUST incident at the subject property was not included in the MDEQ files.
- On April 22, 1990 (Spill No. C-0375-85), a release of approximately 200 gallons of coolant/wash-water solution occurred at the subject property as plant personnel were pumping cutting oils and associated fluids from an AST inside the building to a 10,000-gallon UST (located outside the building). The UST was overfilled, and liquids flowed across the parking lot to the facility's storm-water detention pond. A piping leak was also discovered during cleanup, and approximately 5,350 gallons of storm-water/coolant discharge and all visibly stained soils were excavated and removed from the storm-water detention pond.
- On July 21, 1994, a release of approximately 50 gallons of coolant/wash-water solution occurred at the subject property. Absorbent socks and pads were used to recover released liquids, and 18 cubic yards of impacted soils were excavated.
- The two USTs (6,000-gallon waste oil and 10,000-gallon waste oil/coolant) that were formerly installed at the subject property were removed from the ground on February 27 and 28, 1995. Soil samples collected from the excavation confirmed a release on March 23, 1995 (Spill No. C-0338-95) based on the detection of TCE, pyrene, benzene, ethylbenzene, and toluene. Approximately 190 cubic yards of impacted soil were excavated and disposed off-site.

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All three LUST incidents at the subject property remain 'open' according to the MDEQ.

#### 4.3 Physical Setting Sources

#### 4.3.1 Topography

A review of the 7.5-minute United States Geological Survey (USGS) topographic quadrangle maps for Hillsdale, Michigan (1952; photorevised 1979) indicates that the ground surface in the immediate vicinity and surrounding area of the subject property gently slopes eastward toward the St. Joseph River. The subject property is located at a surface elevation of approximately 1,140 feet above mean sea level (ft amsl) (see Figure 1).

#### 4.3.2 Geology

According to W.R. Farrand and D.L. Bell, the unconsolidated deposits underlying the subject property generally include pale brown to pale reddish brown, fine to coarse sand alternating with layers of small gravel to cobbles. It is a mixed lithology of sedimentary, igneous, and metamorphic rocks that are well- to poorly sorted, well-stratified, and crossbedded in places. The deposits occur as fluvial terraces along present and abandoned drainage ways, as fans and sheets flanking end moraines, and as deltas along glacial lake margins. It includes narrow belts of Holocene alluvium inset below outwash terraces, alongside present streams, but is too limited to map separately. The unconsolidated deposits vary in thicknesses of 3 to 65 feet (Farrand 1984).

Underlying the unconsolidated glacial deposits is the Mississippian-aged Coldwater Shale and Limestone of the Osagean and Kinderhookian Series and is typically encountered at depths of 100 to 200 feet below ground surface (Western Michigan University 1981).

According to the investigations conducted by ETG Environmental, Inc. (ETG) and Dames & Moore, fracturing exists in the intervening shale layer between the upper and lower sandstone units. Bedrock (Marshal Formation) is encountered at depths of approximately 25 to 40 feet below ground surface. The first bedrock unit encountered is either a thin shale layer, typically less than 10 feet in thickness (shallow groundwater zone), or the near-surface sandstone. Beneath this sandstone is a consistent shale layer ranging in thickness from 10 to 20 feet. The shale was encountered at depths of approximately 60 to 70 feet below ground surface and overlies another sandstone to

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shaley sandstone unit, approximately 10 feet in thickness, at approximately 70 to 90 feet below ground surface (deep groundwater zone).

#### 4.3.3 Groundwater

According to an October 2003 groundwater flow map included in the *October 2003 Quarterly Sampling Report* prepared by URS Corporation, Farmington Hills, Michigan, groundwater flow is to the northeast toward the St. Joseph's River. Groundwater in the vicinity of the site is generally encountered at depths ranging from 45 to 60 feet below ground surface (at elevations of approximately 1,100 ft amsl).

#### 4.3.4 Watershed

The St. Joseph River, located approximately 0.65 miles east of the subject property, flows to the north-northwest and eventually drains to Lake Michigan. Bullhead Lake is located approximately 1.25 miles northeast of the subject property

#### 4.4 Historical Use Information on the Property

## 4.4.1 Fire Insurance Maps

Sanborn<sup>TM</sup> Fire Insurance Maps were not available for the subject property.

#### 4.4.2 Aerial Photographs

ARCADIS reviewed historical aerial photographs to depict the visual history of the subject property and adjacent properties. Aerial photographs for 1938, 1955, 1969, 1978, 1983, 1997, and 1998 were reviewed (see Appendix C).

The 1938 aerial photograph depicts the subject property and adjacent properties as agricultural fields with associated residential homes. Earthmoving/construction activities, resembling two airport runways, are visible on the Hillsdale Airport property located further east. Carleton Road (M-99) and Barr Street are developed to the east and south, respectively.

The 1955 aerial photograph depicts the subject property and adjacent properties as they appeared in the 1938 photograph. However, construction of the Hillsdale Airport has been completed.

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The 1969 aerial photograph depicts the subject property as it appeared in the 1955 photograph. Clear cutting or development of the agricultural fields to the west has occurred and a water body has been constructed to the southwest. Uran Street and Arch Avenue have been constructed, and a mobile home park, located to the northeast of the subject property, has been constructed. Additional development (of unknown type) has occurred to the northeast along M-99 and to the southeast along Barr Street. The Hillsdale Airport is no longer in existence.

The 1978 aerial photograph shows the plant building on subject property has been constructed. Industrial Drive is also constructed and extends from Mechanic Road north until just past Uran Street. Industrial development has occurred along Industrial Road, Uran Street, and Mechanic Road. Beck Road has been constructed to the north with industrial development present.

The 1983 aerial photograph depicts the subject property as it appeared in the 1978 photograph with the construction of the parking lot along the western side of the subject property. Industrial Drive has been extended northward, and Proctor Street to the north has been constructed. Additional development has occurred on the surrounding properties in each direction.

The 1997 and 1998 aerial photographs depict the subject property as it appears today with the building and storm-water drain field constructed. Uran Street has been extended westward past Industrial Drive.

No RECs were identified in the review of historical aerial photographs.

#### 4.4.3 Historic Topographic Maps

ARCADIS reviewed historic topographic maps of the subject property and adjacent properties dated 1959, photorevised 1979, and 1990 (see Appendix D). The subject property is depicted as undeveloped on the 1959 and is shown as constructed on the 1979 map. The scale of the 1990 map is too small to discern any detail about the subject property.

The Hillsdale Airport to the east of the subject property is present on the 1959 map. Uran Street, part of Industrial Drive, and industrial development are shown on the 1979 map.

No RECs were identified in the review of historical topographic maps.

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#### 4.4.4 Previous Environmental Investigations

Numerous environmental investigations have been conducted at the subject property as a result of a TCE release at the EaglePicher Rubber Plant and also as a result of the LUST incidents at the subject property.

Twelve monitoring wells (MW-3S/D, MW-4S/D, MW-7S/D, MW-8S/D, MW-10S/D MW-11S/D) and two vertical extraction wells (EW-1, EW-2) are currently installed on the subject property. Groundwater samples collected from some of these monitoring wells during October 2003 indicate non-detectable concentrations of volatile organic compounds (VOCs) in sidegradient Monitoring Well MW-11S, and detectable concentrations of TCE in downgradient Monitoring Wells MW-3S (370 micrograms per liter [µg/L]), MW-4S (800 µg/L), MW-7S (12 µg/L), and MW-8S (290 µg/L). Other VOCs detected in these monitoring wells include PCE; 1,1,1-trichloroethane; cis-1,2-dichloroethylene; 1,1-dichloroethane; and 1,1-dichloroethylene.

#### 5. Site Reconnaissance

#### 5.1 Methodologies and Limiting Conditions

On January 7, 2004, Ms. Sharvin of ARCADIS conducted the site walk-through of the subject property. Ms. Greene of EaglePicher accompanied Ms. Sharvin on the site reconnaissance. There was no precipitation during the site reconnaissance; however, the grounds were covered with snow.

ARCADIS retained Fibertec to conduct ACM and LBP survey of the property.

#### 5.2 General Site Setting

The subject property, approximately 6.8 acres in size, is situated at the southeastern intersection of Industrial Drive and Uran Street in Hillsdale, Michigan (see Figure 1).

The subject property consists of one industrial manufacturing building measuring approximately 92,500 square feet, paved asphalt parking areas, landscaped grassy areas, and a storm-water drain field (see Figures 2 and 3). Industrial and agricultural properties surround the subject property.

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#### 5.3 Observations

The following are the general observations noted during the site reconnaissance of the subject property. Photographs taken by ARCADIS during the site walk through of the subject property are presented in Appendix A.

#### 5.3.1 Inside Building

- The majority of the building consists of metal machining processes and associated equipment that use large quantities of water-soluble coolant during the manufacturing of automobile parts. Coolant is removed from these machines approximately every six weeks and disposed of as nonhazardous waste; fresh coolant is then added.
- The machines located in the northeastern section of the building were formerly connected to two central coolant systems that recirculated coolant to the machines through below-grade trenches. According to Ms. Greene, these trenches and the coolant system were removed of coolant and sludge, cleaned out, and are awaiting dismantling. The integrity of the trenches could not be determined during the Phase I site reconnaissance.
- Offices with drop ceilings; cinder block walls, and tile, ceramic, carpet, or linoleum floors are present along the northern portion of the building. The 12-inch linoleum floor tiles and mastic observed in the office areas of the subject building are considered suspect ACM.
- The building contains three paint booths (two using water-soluble paint; one using LBP), each with a stack that exits through the roof. The LBP booth, currently out of use, is exempt from an air permit because the quantity of VOCs formerly emitted from the subject property was small enough that they did not require an MDEQ air permit. However, the two water-soluble paint booths each have an MDEQ air permit.
- Pools of recently spilled fluids (hydraulic oil and coolant) (de minimis in quantity) were observed on the concrete floor throughout the manufacturing area of the building. The floors in this area were slick from the spilled fluids. However, the entire facility has sealed concrete floors; the floors appeared to be in good condition with no cracks observed in the floors; and no floor drains were observed in the manufacturing area.

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- A nonhazardous waste storage is located in southwestern corner of the building. Approximately 20 55-gallon drums, containing various fluids (rust inhibitor, lubricating oil, hydraulic oil, and spindle oil) were observed stored on the floor and on horizontal storage racks. Two 800-gallon ASTs containing hydraulic oil, two 800-gallon ASTs containing lubricating oil, one 800-gallon AST containing chucker oil, one 800-gallon AST containing automatic transmission fluid, and one 800-gallon AST containing rust inhibitor are also located in this area. Secondary containment was observed beneath the drums and ASTs.
- A waste coolant evaporator is located adjacent to the nonhazardous waste storage area. The coolant evaporator is used to evaporate a portion of the waste coolant generated by the facility. The evaporator consists of a rectangular container that holds the coolant and a stack that vents to the atmosphere through the roof. The coolant is evaporated at room temperature. Secondary containment in the form of concrete curbing surrounds the evaporator.
- A chip bay room is also located in the southwestern corner of the building. Two roll-off containers containing scrap metal chips (generated from the machining processes), one roll-off container containing filter paper/oil debris, and one roll-off container containing solid waste were stored in this room. The floor in the chip bay room is sloped away from the outer bay doors.

There is also a reinforced concrete containment area (of unknown capacity) in the chip bay room. This containment area is used for dumping dirty mop water, coolant, and oil from minor spills within the building. When this containment area is full, it is pumped to the wastewater/coolant AST in this building where it is stored while awaiting off-site disposal. The integrity of these below-grade structures could not be verified during the site reconnaissance.

- A tool crib area is located along the eastern wall of the building. This area contained small metal-working equipment such as mills, drills, and lathes.
- A compressor room is present along the southern wall of the building. The compressor room is equipped with air circulating fans (on the outside wall) and is kept closed during plant operation.
- The following six ASTs were observed throughout the manufacturing/warehouse area of the building.

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- One 5,000-gallon AST containing recycled coolant;
- One 4,000-gallon AST containing wastewater/coolant;
- One 4,000-gallon AST containing condensed waste/used oil;
- One 4,000-gallon AST containing reverse osmosis water;
- One 3,000-gallon AST containing virgin coolant; and
- One 2,000-gallon AST containing wastewater;
- A washroom, rest rooms, and a lunchroom are located in the western portion of the manufacturing area of the facility.
- A shipping and receiving area and finished parts storage area is located in the southern portion of the facility.

#### 5.3.2 Outside Building

- A loading dock area is located off the southwestern corner of the facility. There
  were no drains observed in this area.
- Two wet-type, pad-mounted transformers are located along the western exterior of the building, and one wet-type, pad-mounted transformer is located along the southern exterior of the building. The transformers were labeled as non-PCB containing. According to plant employees, the transformers are owned by EaglePicher.
- Grade level driveways on the northern, eastern, and western sides of the building serve the building. Concrete and asphalt grade parking areas are present on the western and southern sides of the buildings. Truck-loading docks are present on the western and southern sides of the plant. These areas are used for truck loading/unloading and employee/visitor parking.
- Vegetated, grass areas are present along each side of the building.
- Two underground storm-water sewers are installed at the site in the southern and western driveways. A storm-water drain field is located west of the building.

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#### 5.4 Material Handling and Storage Practices

#### 5.4.1 Solid and Hazardous Waste

Nonhazardous solid waste generated by the facility includes metal chips, scrap metal, waste coolant and oils, cardboard, wood pallets, and general trash. Wood pallets, scrap metal, metal chips, waste oil, and cardboard are recycled.

The facility generates hazardous wastes in the form of waste LBP (Primary F003; Secondary D001, D040, F005) and paint filters (Primary F003; Secondary D008). The facility is a small quantity hazardous waste generator (MID054169958).

#### 5.4.2 Petroleum Products

A large quantity of coolant (approximately 20,000 to 30,000 gallons) and various types of oils (lubricating, hydraulic, and spindle) are typically used on-site in the metal machining processes at the subject property. The coolants are either stored in the manufacturing machines or in ASTs.

As specified in the subject property's *Spill Prevention Control and Countermeasures* (SPCC) Plan, The Traverse Group, April 15, 1994 (revised March 22, 1999 and April 3, 2003), oil and coolant storage areas, including ASTs, are inspected monthly for spills, leaks, loose connections, cracks, corrosion, and dents.

## 5.4.3 Aboveground and Underground Storage Tanks

No USTs are currently installed at the subject property. However, the following two USTs were formerly installed at the subject property:

- 10,000-gallon UST containing waste oil/coolant. Installed on January 17, 1980 and removed on February 27, 1995.
- 6,000-gallon UST containing waste oil. Installed on January 17, 1980 and removed on February 28, 1995.

The following six ASTs were observed at the subject property:

One 5,000-gallon AST containing recycled coolant;

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- One 4,000-gallon AST containing wastewater/coolant;
- One 4,000-gallon AST containing condensed waste/used oil;
- One 4,000-gallon AST containing reverse osmosis water;
- One 3,000-gallon AST containing virgin coolant; and
- One 2,000-gallon AST containing wastewater.

#### 5.5 Water, Wastewater, and Storm Water

No lagoons, surface impoundments, or wetlands were observed at the subject property during the site reconnaissance.

#### 5.5.1 Potable Water

Potable water is supplied to the subject property by the City of Hillsdale. No drinking water wells are present on the subject property.

## 5.5.2 Wastewater

The subject property generates sanitary wastewater that is discharged to the City of Hillsdale combined sanitary/storm-water sewer system.

## 5.5.3 Storm Water

Two underground storm-water sewers are installed at the site. One sewer begins off the southwestern corner (in the vicinity of the chip bay area) of the Industrial Drive Plant and flows southwesterly until it ends in the drain field located north of the subject building. The other sewer begins in the southern driveway of the Industrial Drive Plant and continues westward until it intersects the other sewer, which eventually terminates in the drain field. According to a September 21, 2001 *Stormwater Pollution and Prevention Plan* (SWPP) prepared by the Traverse Group, storm water from the roof drains and surface water at the subject property flow to manholes located in the parking lots that discharge to the underground storm-water sewer that then flows westward to the storm-water drain field located north of the building. The drain field connects to a culvert beneath Industrial Drive that ultimately discharges to the St. Joseph River under National Pollutant Discharge Elimination System (NPDES) Permit No. MIS210179.

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A sample of the storm-water entering the drain field was collected in 1992. According to the Traverse Group SWPP, the sample did not exhibit visible evidence that the storm water had been adversely affected.

#### 5.6 Air Emissions

The building contains three paint booths; (one using LBP; two using water-soluble paint); each with a stack that exits through the roof. The lead based paint booth, currently out of use, is exempt from an air permit because the quantity of VOCs formerly emitted from the subject property was small enough that they did not require an MDEQ air permit. However, the two water-soluble paint booths each have an MDEQ air permit.

#### 5.7 Polychlorinated Biphenyls

Two wet-type, pad-mounted transformers are located along the western exterior of the building, and one wet-type, pad-mounted transformer is located along the southern exterior of the building. The transformers were labeled as non-PCB containing. According to plant employees, the transformers are owned by EaglePicher.

#### 5.8 Asbestos and Lead Based Paint Survey

A comprehensive ACM and LBP survey of the subject property with analytical testing was conducted by Fibertec on March 10, 2004. Based on the visual inspection, 26 distinct suspect ACMs and eight major paint colors were identified at the subject property. Fibertec's report is included in Appendix E.

A summary of the Fibertec analytical results is listed below:

- The white sink undercoating in the kitchen/break area was found to contain asbestos.
- The fire door and frame were assumed to contain asbestos.
- No paints were found to be lead-based (0.5% or greater lead by weight)
- Eight paints were found to be lead-containing (less than 0.5% lead by weight)

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Based on the ACM and LBP survey, Fibertec recommends the following activities be conducted:

- Notify the owner, building maintenance staff, and contractors of the presence, quantity, location, and condition of the ACM and LBP.
- Given the undamaged condition of the accessible asbestos-containing sink undercoating in the kitchen/break area and the fire doors and frames, manage it in place.
- In the event of building renovation or demolition, remove the ACM from areas where they will be disturbed. Control the dust generated from the demolition activities that might generate lead dust and control lead exposure to within regulatory limits.
- Conduct on-site air monitoring during asbestos removal and lead-containing painted surface demolition to document compliance with applicable regulations and to document acceptable air quality following the work.

## 5.9 Permits

Surface-water runoff from the subject property discharges to the St. Joseph River under NPDES Permit No. MIS210179.

The subject property emits VOCs from the application of water-based paints at two of the three paint booths located at the subject property. This process is permitted with an MDEQ air permit.

#### 6. Interviews

#### 6.1 Interview with Owner/Site Manager

Ms. Greene is the EHS Manager for the subject property and has been employed at the subject property for over one year. The information provided by Ms. Greene about past tenants and site operations is included throughout this report.

Mr. Douglas Rommeck, Manager, Health, Safety and Environment for all of the Hillsdale Division facilities of EaglePicher was interviewed regarding the

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environmental issues at the subject property. The information provided by Mr. Rommeck about past tenants and site operations is included throughout this report.

#### 6.2 Interviews with Occupants

EaglePicher and Hillsdale Tool have occupied the subject property since its construction.

#### 6.3 Interviews with Local Government Officials

ARCADIS contacted the MDEQ, City of Hillsdale Accessor's Office, City of Hillsdale Building Department, and Hillsdale County Health Agency to review any files that may be present regarding the subject property. Information received from this department is included throughout this report.

#### 6.4 Interviews with Others

No additional interviews were conducted.

#### 7. Conclusions

In the professional opinion of ARCADIS, an appropriate level of inquiry has been made into the previous ownership and uses of the subject property consistent with good commercial and customary practice in an effort to minimize environmental liability.

ARCADIS' assessment revealed the following RECs in connection with the current and historic operations conducted at the subject property and adjacent properties.

- Three LUST incidents have occurred at the subject property and each incident remains 'open' according to the MDEQ.
- Two central coolant systems that utilize below-grade trenches to transport coolant to various machines located throughout the plant are installed at the subject property. The integrity of these below-grade structures could not be verified during the site reconnaissance. According to Ms. Greene, the coolant system is no longer in use and is awaiting closure. The integrity of these trenches could not be verified during the site reconnaissance.

Privileged & Confidential. Attorney - Client Communication.

## Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

- There is a reinforced concrete containment area (of unknown capacity) in the chip bay room. This containment area is used for dumping dirty mop water, coolant, and oil from minor spills within the building, and also collects coolant draining from the metal chip roll-off containers. When this containment area is full, it is pumped to the wastewater/coolant AST in the building where it is stored while awaiting off-site disposal. ARCADIS could not verify the integrity of this containment area during the site reconnaissance.
- Based on ARCADIS' review of the information contained within the EDR report, the EaglePicher Rubber Plant site at 215 Industrial Drive located upgradient and adjacent to the subject property poses an environmental risk to the subject property because of the documented environmental impacts as a result of a release of TCE to the subsurface.

The following issues of concern that are outside the requirement of the ASTM Phase I ESA standard were also identified at the subject property:

• The white sink undercoating in the kitchen/break area was found to contain asbestos, and the fire door and frame were assumed to contain asbestos.

Analytical results of recent groundwater samples collected from monitoring wells located on the subject property indicate concentrations of TCE and PCE above the MDEQ residential cleanup criteria. According to the MDEQ, the subject property meets the requirements to be considered a 'facility' (as defined in Part 201, Section 324.20101(1)(o) of the Natural Resources and Environmental Protection Act (NREPA) 1994, Public Act (PA) 451, of 1994, as amended) for groundwater impacts resulting from a TCE release at the subject property.

#### 8. Deviations

No chain-of-title was provided by EaglePicher nor was one ordered by ARCADIS as per the scope of work.

A comprehensive ACM and LBP survey with analytical testing was conducted by Fibertec at the subject property on March 10, 2004.

Privileged & Confidential. Attorney - Client Communication.

## Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

#### 9. References

- ASI Environmental Technologies, June 5, 1992. *Hydrogeologic Investigation and UST Release Report for Daisy Parts, Inc*, 221 Industrial Drive, Hillsdale, Michigan.
- Dames & Moore, March 2, 1998. Voluntary Remedial Action Plan, Hillsdale Tool Division, Rubber Products and Daisy II Plants, Hillsdale, Michigan.
- Dyko, Barbara, Hillsdale Community Health Agency. Telephone communication with D. Sharvin of ARCADIS. January 2004.
- ETG Environmental Inc., April 11, 1995. *Initial Abatement 20-day Report, Hillsdale Tool Daisy II Facility, 221 Industrial Drive, Hillsdale, Michigan.*
- ETG Environmental Inc., May 22, 1995. *Initial Assessment Report for Hillsdale Tool Daisy II Facility, 221 Industrial Drive, Hillsdale, Michigan.*
- Farrand, W.R. and D.L. Bell. 1984. Quaternary Geology of Southern Michigan. Department of Geological Sciences, The University of Michigan, Ann Arbor, Michigan.
- Fibertec Industrial Hygiene Services, Inc., March 31, 2004. *Asbestos and Lead Building Inspection Report, EaglePicher Facility, 221 Industrial Drive, Hillsdale, Michigan.*
- Greene, Stacy, EaglePicher EHS Coordinator. 2003. Personal communication with D. Sharvin of ARCADIS. January 2004.
- Rommeck, Douglas, EaglePicher Manager, Health, Safety and Environment. 2004. Personal communication with D. Sharvin of ARCADIS. January 2004.
- Taylor, Martin, Hillsdale County Building Inspection. Telephone communication with D. Sharvin of ARCADIS. January 2004.
- The Traverse Group, September 21, 2001. Stormwater Pollution and Prevention Plan for EaglePicher Hillsdale Tool Division, Industrial Drive Plant (221 Industrial Drive) and Rubber Plant (215 Industrial Drive)

Privileged & Confidential. Attorney - Client Communication.

## Phase I Environmental Site Assessment

EaglePicher Automotive Industrial Drive Plant 221 Industrial Drive Hillsdale, Michigan

URS Corporation, January 19, 2004. October 2003 Quarterly Sampling Report, Hillsdale Too Division: Rubber Products/Daisy II Facilities.

U.S. Geological Survey, Topographic Map, *Hillsdale, Michigan*, 1992, 7.5-Minute Quadrangle.

Western Michigan University. 1981. Hydrogeologic Atlas of Michigan

## 10. Signatures of Environmental Professionals

Dawn L. Sharvin Staff Scientist

Joseph A. Quinnan, PE, PG

Principal Hydrogeologist/Engineer

Maunt Shawin

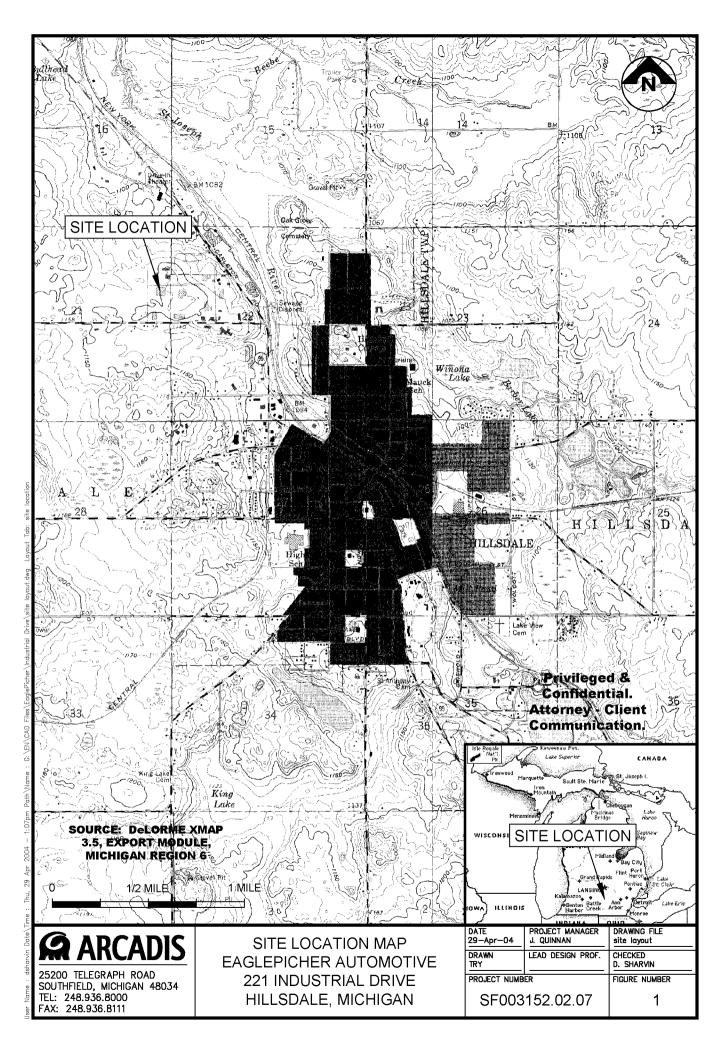
Robert A. Ferree, CPG

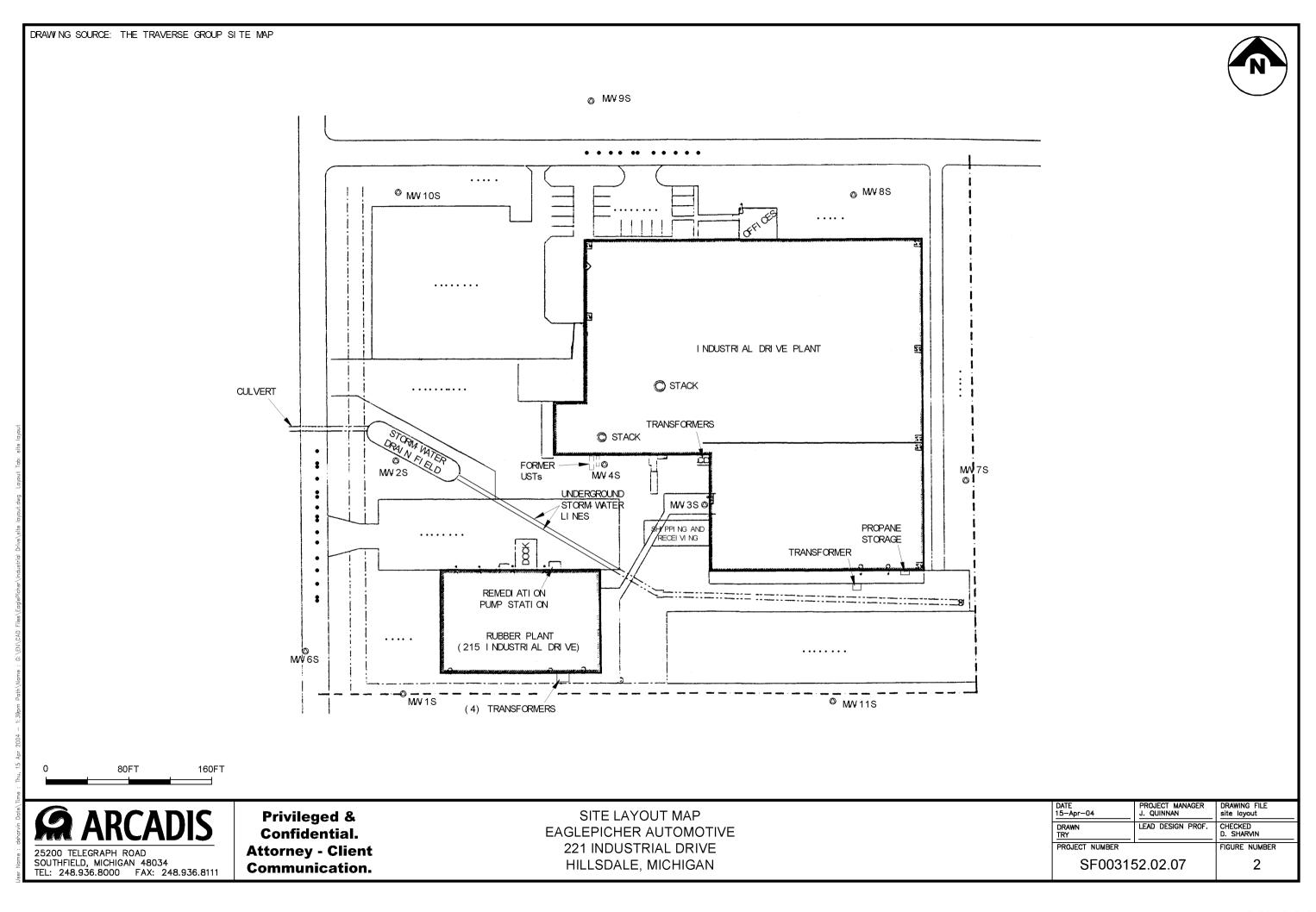
Vice President

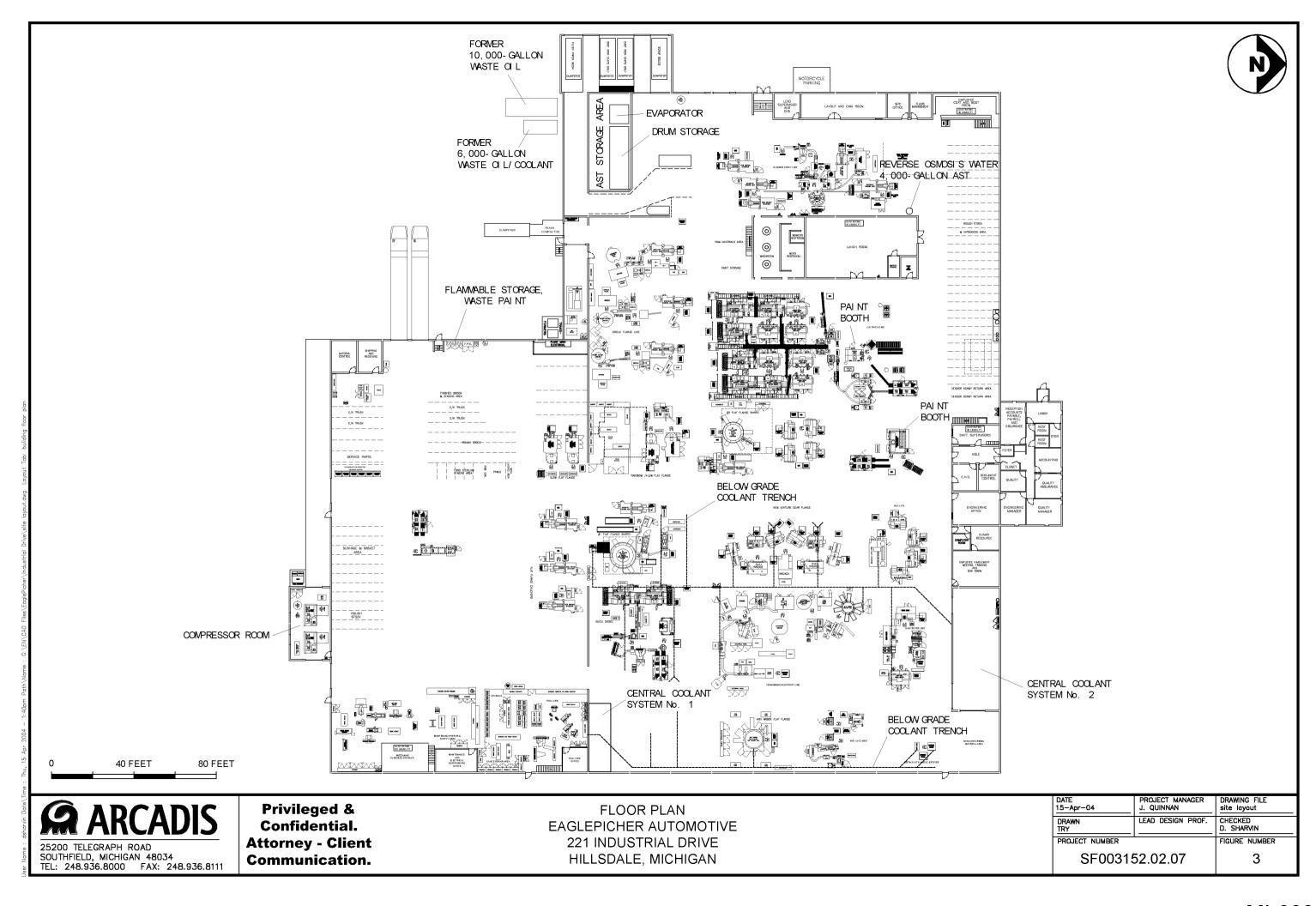
#### 11. Qualifications of Environmental Professionals

Ms. Sharvin is a Staff Scientist with ARCADIS and has performed environmental site assessment and subsurface investigations for over seven years. She has evaluated releases to the environment and supervised remedial actions. Mr. Quinnan is a Principal Hydrogeologist/Engineer with ARCADIS and has more than 13 years of environmental consulting experience that encompasses a variety of infrastructure, natural resource, and hazardous waste projects. Mr. Ferree is a Vice President with ARCADIS and has over 18 years of environmental consulting experience. Resumes for Ms. Sharvin and Messrs. Quinnan and Ferree are included in Appendix F.

Figures

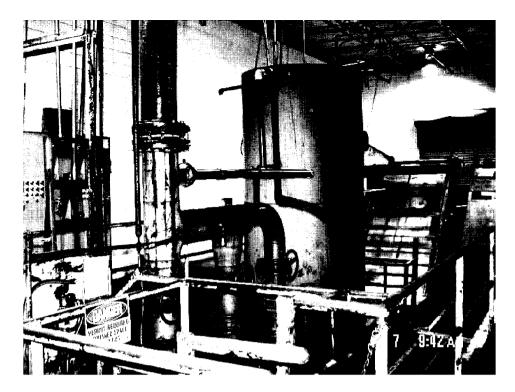




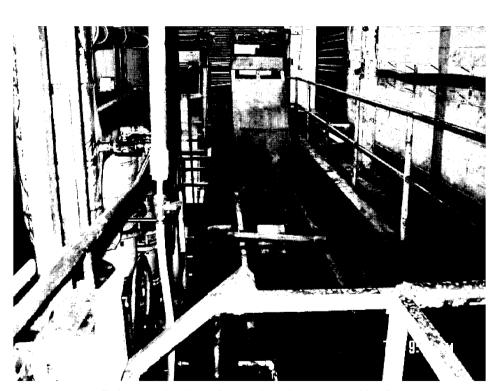


## Appendix A

Site Photographs



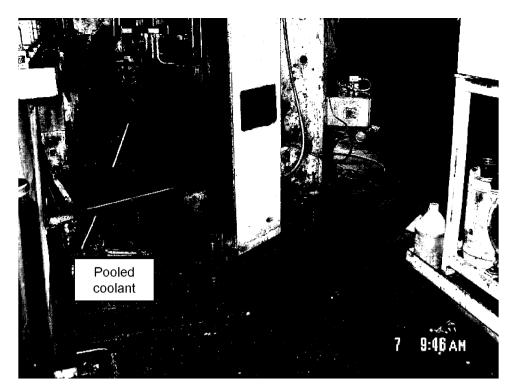
Central coolant system No. 2.



Below grade view of central coolant system No. 2.

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:         PROJECT MANAGER:         DRAWING NAME:           13-Jan-04         J. QUINNAN         photolog.ppt           DRAWN:         LEAD DESIGN PROF:         CHECKED:           DLS         D. SHARVIN           PROJECT NUMBER:         APPENDIX:	SE003152 02 07		Δ
13-Jan-04         J. QUINNAN         photolog.ppt           DRAWN:         LEAD DESIGN PROF:         CHECKED:	PROJECT NUMBER:		APPENDIX:
13-Jan-04 J. QUINNAN photolog.ppt	DLS		D. SHARVIN
I I	DRAWN:	LEAD DESIGN PROF:	CHECKED:
DATE: PROJECT MANAGER: DRAWING NAME:	13-Jan-04	J. QUINNAN	photolog.ppt
	DATE:	PROJECT MANAGER:	DRAWING NAME:



Coolant spill on plant floor.



800-gallon aboveground storage tanks (ASTs) containing various oils.

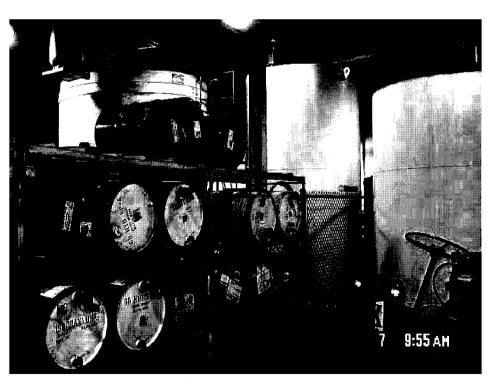


25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.07	A



AST storage area.

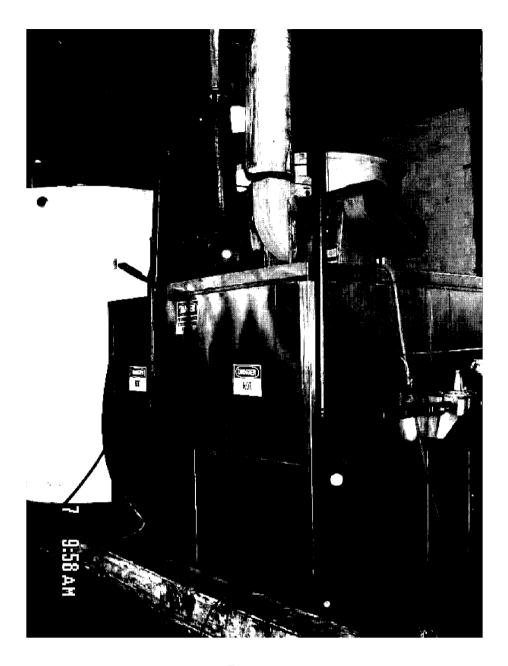


Drum storage area.



25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.07	Α

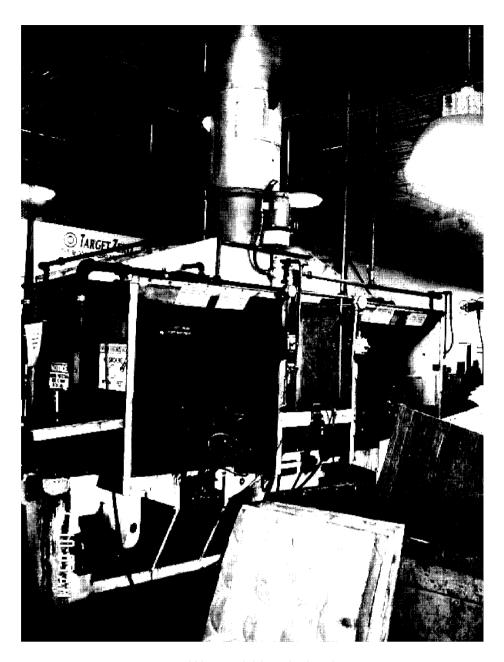


Evaporator.



25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE: 28-Jul-03	PROJECT MANAGER: R. FERREE	DRAWING NAME: photolog.ppt
DRAWN: DLS	LEAD DESIGN PROF:	CHECKED: D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003152.02.07		Α



Water soluble paint booth.

ARCADIS

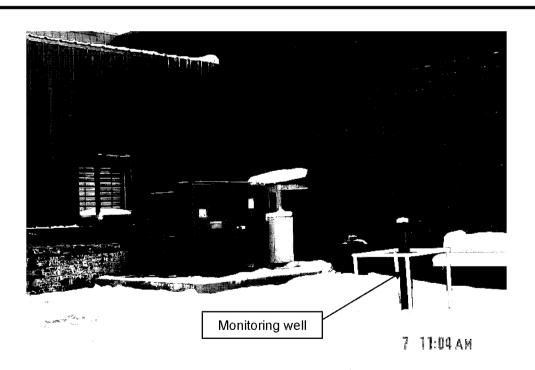
25200 TELEGRAPH ROAD

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE: 28-Jul-03	PROJECT MANAGER: R. FERREE	DRAWING NAME: photolog.ppt
DRAWN: DLS	LEAD DESIGN PROF:	CHECKED: D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003152.02.07		Α



Maintenance and part storage area.

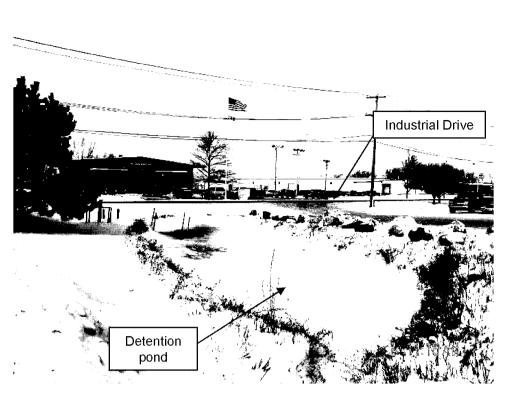


Typical non-PCB containing transformer.

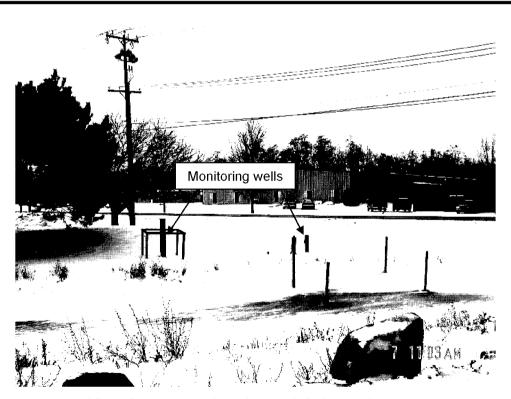


25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.07	Α



View of storm water detention pond (facing northwest).



View of storm water detention pond (facing southwest).

25200 TELEGRAPH ROAD SOUTHFIELD, MICHIGAN 48034 TEL: 248.936.8000 FAX: 248.936.8111

DATE:	PROJECT MANAGER:	DRAWING NAME:
13-Jan-04	J. QUINNAN	photolog.ppt
DRAWN:	LEAD DESIGN PROF:	CHECKED:
DLS		D. SHARVIN
PROJECT NUMBE	R:	APPENDIX:
SF003 <sup>2</sup>	152.02.07	Α

Appendix B

EDR Report



# The EDR Radius Map with GeoCheck'

EaglePicher 221 Industrial Drive Hillsdale, MI 49242

Inquiry Number: 1097812.4s

December 12, 2003

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06890

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802 Internet: www.edrnet.com

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GEOCHECK ADDENDUM	
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Physical Setting Source Summary	A-2
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Physical Setting Source Records Searched	A-12

Thank you for your business.
Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

### TARGET PROPERTY INFORMATION

### **ADDRESS**

221 INDUSTRIAL DRIVE HILLSDALE, MI 49242

### COORDINATES

Latitude (North): 41.937200 - 41° 56' 13.9" Longitude (West): 84.653600 - 84° 39' 13.0"

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 694525.5 UTM Y (Meters): 4645253.0

Elevation: 1146 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 41084-H6 HILLSDALE, MI Source: USGS 7.5 min quad index

#### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following government records. For more information on this property see page 6 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
D II 221 INDUSTRIAL DR HILLSDALE, MI 49242	UST LUST	N/A
HILLSDALE TOOL AND RUBBER 215 INDUSTRIAL DRIVE HILLSDALE, MI 49242	SHWS	N/A
DAISY PARTS #2 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242	DEL SHWS	N/A
HILLSDALE TOOL & MFG. COMPANY INC., DAISY PARTS 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID000809871
EAGLE-PICHER AUTOMOTIVE RUBBER PLT 215 INDUSTRIAL DR HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID000809798
E P HT DIV TECHNICAL CTR 263 INDUSTRIAL DR HILLSDALE, MI 49242	RCRIS-SQG FINDS	MID985569623

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ( "reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

#### FEDERAL ASTM STANDARD

NPL..... National Priority List

Proposed NPL..... Proposed National Priority List Sites

System

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

CORRACTS...... Corrective Action Report

RCRIS-TSD..... Resource Conservation and Recovery Information System

ERNS..... Emergency Response Notification System

### STATE ASTM STANDARD

SWF/LF\_\_\_\_\_Solid Waste Facilities Database

BEA.....BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

HIST LF.....Inactive Solid Waste Facilities

INDIAN UST...... Underground Storage Tanks on Indian Land

### FEDERAL ASTM SUPPLEMENTAL

CONSENT\_\_\_\_\_Superfund (CERCLA) Consent Decrees

Delisted NPL..... National Priority List Deletions

HMIRS..... Hazardous Materials Information Reporting System

MLTS..... Material Licensing Tracking System

DOD\_\_\_\_\_\_ Department of Defense Sites
RAATS\_\_\_\_\_\_ RCRA Administrative Action Tracking System
TRIS\_\_\_\_\_\_ Toxic Chemical Release Inventory System

FTTS INSP...... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, &

Rodenticide Act)/TSCA (Toxic Substances Control Act)

### STATE OR LOCAL ASTM SUPPLEMENTAL

AST..... Aboveground Tanks

PEAS\_\_\_\_\_\_Pollution Emergency Alerting System

### EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas ...... Former Manufactured Gas (Coal Gas) Sites

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS..... A Listing of Brownfields Sites

#### SURROUNDING SITES: SEARCH RESULTS

data on individual sites can be reviewed.

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### FEDERAL ASTM STANDARD

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRIS-LQG list, as provided by EDR, and dated 09/10/2003 has revealed that there is 1 RCRIS-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ACT LABORATORIES INCORPORATED	273 INDUSTRIAL DR.	0 - 1/8 N	В8	10

RCRIS: Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of

the waste.

A review of the RCRIS-SQG list, as provided by EDR, and dated 09/10/2003 has revealed that there are 2 RCRIS-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
BOSE CORPORATION	260 INDUSTRIAL DR	0 - 1/8 N	<i>B7</i>	9
Lower Elevation	Address	Dist / Dir	Map ID	Page
EATON TECHNOLOGIES	240 URAN ST	1/8 - 1/4 E	10	12

#### STATE ASTM STANDARD

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's Leaking Underground Storage Tank (LUST) Database.

A review of the LUST list, as provided by EDR, and dated 09/12/2003 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir Map ID	Page
FORMER BILCOR PLASTICS PLANT	411 CALETON RD	1/4 - 1/2WSW 12	12
Lower Elevation	Address	Dist / Dir Map ID	Page
PLAYFORD DODGE SALES INC	N M99	1/4 - 1/2NNE 13	14

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Michigan UST database.

A review of the UST list, as provided by EDR, and dated 09/12/2003 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
BILCOR PLASTICS INC	2250 MECHANIC	1/8 - 1/4 SW	9	11

### STATE OR LOCAL ASTM SUPPLEMENTAL

DEL SHWS: Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for the site does support it's listing or the site no longer meets criteria specified in rules.

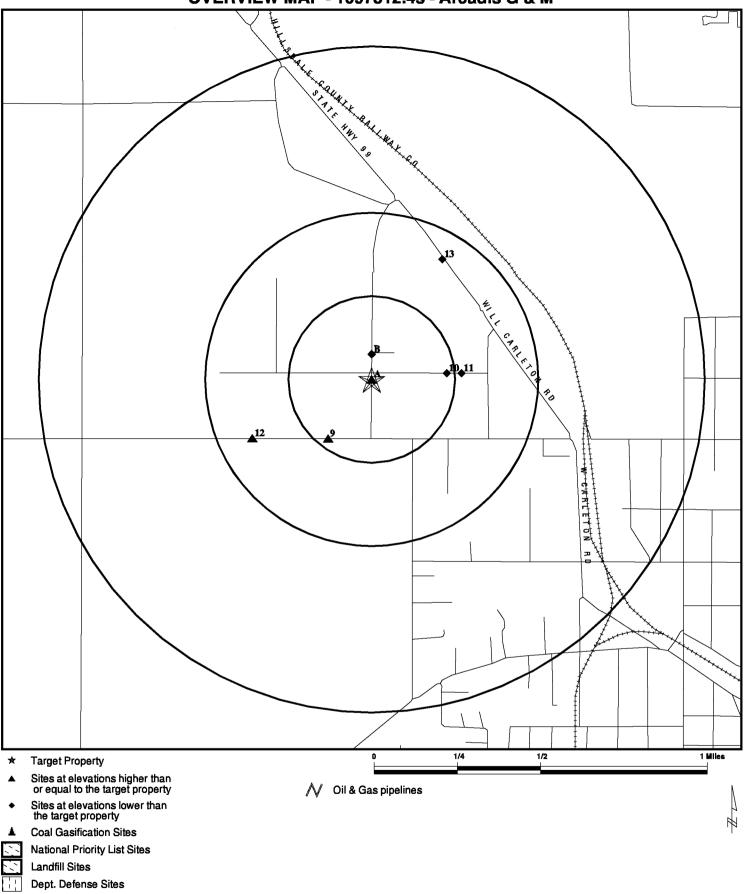
A review of the DEL SHWS list, as provided by EDR, and dated 09/23/2003 has revealed that there is 1 DEL SHWS site within approximately 1 mile of the target property.

Lower Elevation	Address	Dist / Dir	Map ID	Page
ESSEX SPECIALTY PROD INC	190 URAN ST	1/4 - 1/2E	11	12

Due to poor or inadequate address information, the following sites were not mapped:

Site Name	Database(s)
BILCOR PLASTICS	SHWS
KESSERLING, HOWARD 4	SHWS
HILLSDALE COAL GASIFICATION FAC	SHWS
LUCAS LF/JONESVILLE GARBAGE SRVC	SHWS
STILLWELL KEN FORD MERCURY INC	RCRIS-SQG, FINDS
METALLIST INC	RCRIS-SQG, FINDS

## OVERVIEW MAP - 1097812.4s - Arcadis G & M



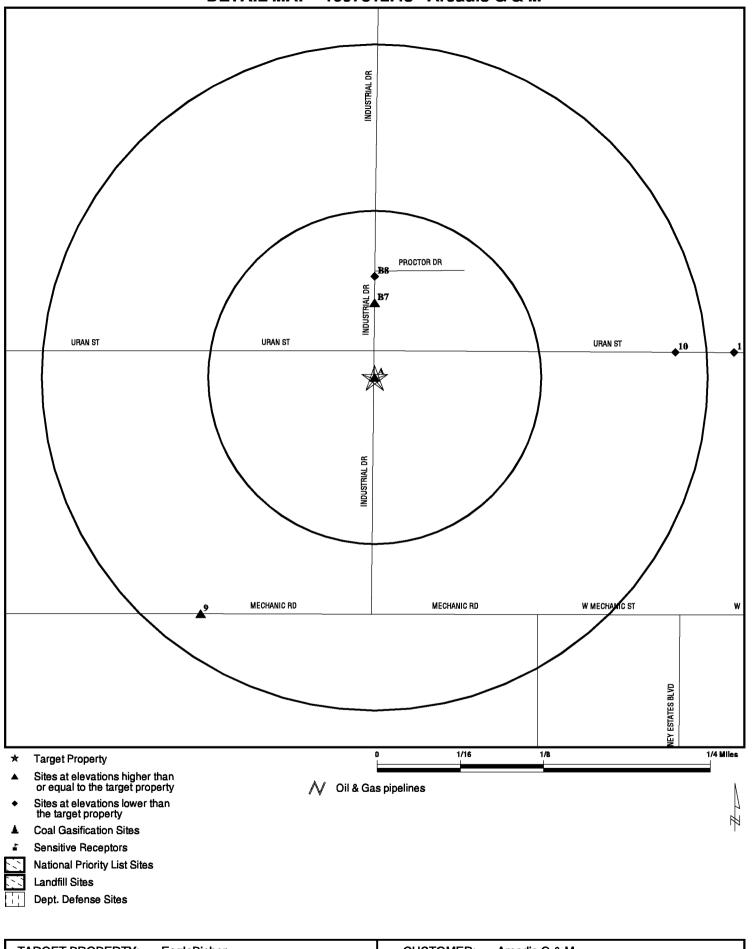
TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP:

LAT/LONG:

EaglePicher 221 Industrial Drive Hillsdale MI 49242 41.9372 / 84.6536 CUSTOMER: Arcadis G & M CONTACT: Dawn Sharvin 1097812.4s

DATE: December 12, 2003 2:23 pm

## **DETAIL MAP - 1097812.4s - Arcadis G & M**



TARGET PROPERTY: ADDRESS: CITY/STATE/ZIP: LAT/LONG: EaglePicher 221 Industrial Drive Hillsdale MI 49242 41.9372 / 84.6536 CUSTOMER: Arcadis G & M CONTACT: Dawn Sharvin 1097812.4s

DATE: December 12, 2003 2:23 pm

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FEDERAL ASTM STANDARI	2							
NPL Proposed NPL CERCLIS CERC-NFRAP CORRACTS RCRIS-TSD RCRIS Lg. Quan. Gen. RCRIS Sm. Quan. Gen. ERNS	X	1.000 1.000 0.500 0.250 1.000 0.500 0.250 0.250 TP	0 0 0 0 0 1 1 NR	0 0 0 0 0 0 1 NR	0 0 0 NR 0 0 NR NR NR NR	0 0 NR NR 0 NR NR NR NR	NR NR NR NR NR NR NR NR	0 0 0 0 0 0 1 2
STATE ASTM STANDARD								
State Haz. Waste State Landfill LUST UST BEA HIST LF INDIAN UST	X X X	1.000 0.500 0.500 0.250 0.500 0.500 0.250	0 0 0 0 0	0 0 1 0 0	0 0 2 NR 0 0 NR	O NR NR NR NR NR NR	NR NR NR NR NR NR	0 0 2 1 0 0
FEDERAL ASTM SUPPLEME	ENTAL							
CONSENT ROD Delisted NPL FINDS HMIRS MLTS MINES NPL Liens PADS US BROWNFIELDS DOD RAATS TRIS TSCA SSTS FTTS	X	1.000 1.000 1.000 TP TP TP 0.250 TP TP 0.500 1.000 TP TP TP TP	0 0 0 RR RR O RR O O RR RR RR O RR RR RR RR R	0 0 0 NR NR NR O R NR NR NR O R NR N	0 0 0 NR	0 0 0 R R R R R R R R R R R R R R R R R	NR NR NR NR NR NR NR NR NR NR NR NR NR N	0 0 0 0 0 0 0 0 0
STATE OR LOCAL ASTM SUPPLEMENTAL								
AST DEL SHWS PEAS	Х	TP 1.000 TP	NR 0 NR	NR 0 NR	NR 1 NR	NR 0 NR	NR NR NR	0 1 0
EDR PROPRIETARY HISTOR	RICAL DATABA	ASES						
Coal Gas		1.000	0	0	0	0	NR	0

# MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	> 1	Total Plotted
BROWNFIELDS DATABASE	<u>:s</u>							
US BROWNFIELDS		0.500	0	0	0	NR	NR	0

### NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

A1 D II UST U002301331
Target 221 INDUSTRIAL DR LUST N/A

Target 221 INDUSTRIAL DR Property HILLSDALE, MI 49242

Site 1 of 6 in cluster A

Actual: 1146 ft.

LUST:

Facility ID: 00006231
Release Number: C-1173-85
Release Date: Jan 10 1980
Facility Status: Open

District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381 Contact : MARLYN MOON Facility Phone : (517) 439-0547

Facility ID: 00006231
Release Number: C-0338-95
Release Date: Mar 23 1995
Facility Status: Open

Facility Status: Open

District: Jackson District Office

Closed Date: Not reported
Owner Contact: Not reported

Owner Name: Hillsdale Tool Mfg Co Owner Address: 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381 Contact : MARLYN MOON Facility Phone : (517) 439-0547

Facility ID: 00006231
Release Number: C-0375-85
Release Date: Apr 25 1990
Facility Status: Open

District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported

Owner Name : Hillsdale Tool Mfg Co Owner Address : 135 E South St

Hillsdale, MI 49242

Country: USA

Owner Phone : (517) 439-9381 Contact : MARLYN MOON Facility Phone : (517) 439-0547

UST:

Facility ID: 00006231

Tank ID:

Owner: Hillsdale Tool Mfg Co

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

D II (Continued)

Owner Address: 135 E South St

Hillsdale, MI 49242

Owner Phone: 517-439-9381

Product: WATER SOLUBLE COOLAN

Capacity: 10000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Galvani ed Steel

Piping Type: Suction: No Valve At Tank

Contact: MARLYN MOON Contact Phone: 517-439-0547

Impressed Device:No

Install Date: Jan 17 1980

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00006231

Tank ID:

Owner: Hillsdale Tool Mfg Co Owner Address: 135 E South St Hillsdale, MI 49242

Owner Phone: 517-439-9381 Product: Used Oil

Capacity: 6000

Tank Status: Removed from Ground

Constr Material: Asphalt Coated or Bare Steel, Fiberglass Reinforced plastic

Piping Material: Fiberglass reinforced plastic, Galvani ed Steel

Piping Type: Suction: No Valve At Tank

Contact: MARLYN MOON Contact Phone: 517-439-0547

Impressed Device:No

Install Date: Jan 17 1980

Release Detection:

Tank: Not reported Pipe: Not reported

A2 HILLSDALE TOOL AND RUBBER

Target 215 INDUSTRIAL DRIVE Property HILLSDALE, MI 49242

Site 2 of 6 in cluster A

Actual: 1146 ft.

SHWS:

Facility ID: 30000007

Facility Status: Interim Response in progress Source: Industrial Organic Chemicals

Pollutant(s): TCE SAM Score: 34 SAM Score Date: 02/28/1991 Township: **06S** 03W Range: Section: 21 Quarter: ΝE Quarter/Quarter: SE

TC1097812.4s Page 7

SHWS

1003883809

N/A

MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

HILLSDALE TOOL AND RUBBER (Continued)

1003883809

АЗ DAISY PARTS #2

**DEL SHWS** S105965596

Target 221 INDUSTRIAL DRIVE Property HILLSDALE, MI 49242

N/A

Site 3 of 6 in cluster A

Actual: 1146 ft.

Α4

**DELETED HWS:** 

Facility ID:

30000038

Status: Deleted - available documentation does n

HILLSDALE TOOL & MFG. COMPANY INC., DAISY PARTS PLANT 2

RCRIS-SQG 1000292249 MID000809871 **FINDS** 

221 INDUSTRIAL DRIVE Target **Property** HILLSDALE, MI 49242

Site 4 of 6 in cluster A

Actual: 1146 ft.

RCRIS:

**EAGLE PICHER INDUSTRIES** Owner:

(513) 721-7010

EPA ID: MID000809871 Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

EAGLE-PICHER AUTOMOTIVE RUBBER PLT Α5

RCRIS-SQG 1000292246 **FINDS** MID000809798

Target 215 INDUSTRIAL DR Property

HILLSDALE, MI 49242

Site 5 of 6 in cluster A

Actual: 1146 ft.

RCRIS:

NAME NOT REPORTED Owner:

(312) 555-1212

EPA ID: MID000809798 Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Map ID MAP FINDINGS

Direction Distance Distance (ft.)

Elevation Database(s)

EDR ID Number **EPA ID Number** 

> Date of Compliance

1000292246

EAGLE-PICHER AUTOMOTIVE RUBBER PLT (Continued)

Violation Status: Violations exist

Regulation Violated: Not reported

Area of Violation: **GENERATOR-OTHER REQUIREMENTS** 

08/24/1994 Date Violation Determined: Actual Date Achieved Compliance: 02/14/1995

**Enforcement Action:** WRITTEN INFORMAL

Enforcement Action Date: 08/24/1994 Penalty Type: Not reported

There are 1 violation record(s) reported at this site:

Other Evaluation **GENERATOR-OTHER REQUIREMENTS** 19950214 Compliance Evaluation Inspection **GENERATOR-OTHER REQUIREMENTS** 19950214

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Biennial Reporting System (BRS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

Α6 E P HT DIV TECHNICAL CTR RCRIS-SQG 1000292253 263 INDUSTRIAL DR **FINDS** MID985569623 Target

HILLSDALE, MI 49242 Property

Site 6 of 6 in cluster A

Actual: 1146 ft.

NAME NOT REPORTED Owner:

> (312) 555-1212 MID985569623

EPA ID: Contact: Not reported

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

В7 **BOSE CORPORATION** RCRIS-SQG 1000197008 FINDS MID981534597

North 260 INDUSTRIAL DR < 1/8 HILLSDALE, MI 49242

295 ft.

Site 1 of 2 in cluster B

Relative: Equal

Actual: 1146 ft. Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

Elevation Site

EDR ID Number

EPA ID Number

Database(s) EPA ID Number

BOSE CORPORATION (Continued)

1000197008

1000151236

MID038708665

RCRIS-LQG

FINDS

RCRIS:

Owner: BOSE AMAR

(312) 555-1212 MID081534507

EPA ID: MID981534597

Contact: NANCY PETERS (508) 879-7330

Classification: Small Quantity Generator

TSDF Activities: Not reported

Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS)

Resource Conservation and Recovery Act Information system (RCRAINFO)

B8 ACT LABORATORIES INCORPORATED
North 273 INDUSTRIAL DR.

< 1/8 HILLSDALE, MI 49242

401 ft.

Actual:

Site 2 of 2 in cluster B

Relative: Lower

RCRIS:

Owner: NAME NOT REPORTED

(312) 555-1212 EPA ID: MID038708665

1144 ft. EPA ID: MID038708665

Contact: Not reported

Classification: Large Quantity Generator

TSDF Activities: Not reported

**BIENNIAL REPORTS:** 

Last Biennial Reporting Year: 2001

 Waste
 Quantity (Lbs)
 Waste
 Quantity (Lbs)

 D001
 21100.92
 D008
 34904.09

 D010
 2403.00
 F005
 29816.51

Violation Status: Violations exist

Regulation Violated: Not reported

Area of Violation: GENERATOR-CONTAINER

Date Violation Determined: 03/09/2000 Actual Date Achieved Compliance: 03/21/2002

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/09/2000
Penalty Type: Not reported
Regulation Violated: Not reported

Area of Violation: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

Date Violation Determined: 03/09/2000 Actual Date Achieved Compliance: 03/21/2002

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/09/2000
Penalty Type: Not reported
Regulation Violated: Not reported

Area of Violation: GENERATOR-OTHER REQUIREMENTS

Date Violation Determined: 03/31/1992

MAP FINDINGS

Map ID Direction Distance Distance (ft.)

EDR ID Number Elevation Database(s) **EPA ID Number** 

ACT LABORATORIES INCORPORATED (Continued)

1000151236

08/28/1992 Actual Date Achieved Compliance:

**Enforcement Action:** WRITTEN INFORMAL

Enforcement Action Date: 03/31/1992 Penalty Type: Not reported Regulation Violated: Not reported

Area of Violation: **GENERATOR-OTHER REQUIREMENTS** 

Date Violation Determined: 03/31/1992 Actual Date Achieved Compliance: 08/28/1992

WRITTEN INFORMAL **Enforcement Action:** 

03/31/1992 Enforcement Action Date: Penalty Type: Not reported Not reported Regulation Violated:

Area of Violation: GENERATOR-OTHER REQUIREMENTS

Date Violation Determined: 03/31/1992 Actual Date Achieved Compliance: 08/28/1992

Enforcement Action: WRITTEN INFORMAL

Enforcement Action Date: 03/31/1992 Penalty Type: Not reported

There are 5 violation record(s) reported at this site:

( / 1		Date of
Evaluation	Area of Violation	Compliance
Compliance Evaluation Inspection	GENERATOR-CONTAINER	20020321
	GENERATOR-ALL REQUIREMENTS (OVERSIGHT)	20020321
Other Evaluation	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828
Compliance Evaluation Inspection	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828
	GENERATOR-OTHER REQUIREMENTS	19920828

### FINDS:

Other Pertinent Environmental Activity Identified at Site:

AIRS/AIRS Facility Subystem (AIRS/AFS) Biennial Reporting System (BRS) National Emissions Trends (NET)

Resource Conservation and Recovery Act Information system (RCRAINFO)

Toxic Chemical Release Inventory System (TRIS)

**BILCOR PLASTICS INC** U003210954 UST N/A

SW 2250 MECHANIC HILLSDALE, MI 49242 1/8-1/4

1163 ft.

UST: Relative:

Facility ID: 00008340 Higher

Tank ID:

Owner: Rec Creations Inc Actual: 1148 ft. Owner Address: PO Box 765

Hillsdale, MI 49242

Owner Phone: Product: Gasoline Capacity: 1000

Tank Status: Removed from Ground Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel MAP FINDINGS

Direction Distance Distance (ft.)

Map ID

EDR ID Number Elevation Database(s) **EPA ID Number** 

BILCOR PLASTICS INC (Continued)

U003210954 Piping Type: Not reported

Contact: Not reported Contact Phone:

Impressed Device:No

Install Date: Mar 28 1966

Release Detection:

Tank: Not reported Pipe: Not reported

RCRIS-SQG 10 **EATON TECHNOLOGIES** 1004724514

East 240 URAN ST

1/8-1/4 HILLSDALE, MI 49242

1197 ft.

RCRIS: Relative:

**EATON TECHNOLOGIES** Owner: Lower

(517) 439-5900 MIR000004598

EPA ID: Actual: 1141 ft. MARK KALINOWSKI Contact:

(517) 439-5900

Classification: Conditionally Exempt Small Quantity Generator

TSDF Activities: Not reported Violation Status: No violations found

FINDS:

Other Pertinent Environmental Activity Identified at Site:

Resource Conservation and Recovery Act Information system (RCRAINFO)

11 **ESSEX SPECIALTY PROD INC DEL SHWS** 1006897739 N/A

East 190 URAN ST

1/4-1/2 HILLSDALE, MI 49242 1429 ft.

**DELETED HWS:** Relative:

Facility ID: 30000003 Lower

Status: Deleted - available documentation does n

Actual: 1138 ft.

U003425809 12 FORMER BILCOR PLASTICS PLANT UST LUST N/A

WSW 411 CALETON RD 1/4-1/2 HILLSDALE, MI 43607

2108 ft.

LUST: Relative:

Facility ID: 00001697 Higher Release Number: C-0007-98

Dec 31 1997 Release Date: Actual: 1149 ft. Facility Status: Open

> District: Jackson District Office

Closed Date: Not reported Owner Contact: Not reported **FINDS** 

MIR000004598

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Elevation Site Database(s)

EDR ID Number

**EPA ID Number** 

U003425809

FORMER BILCOR PLASTICS PLANT (Continued)

Owner Name : Shannon Prop Owner Address : 1801 Richards Rd

Toledo, OH 43607

Country: USA

Owner Phone : (419) 322-7400 Contact : JON AHLBERG Facility Phone : (419) 322-7400

UST:

Facility ID: 00001697

Tank ID:

Owner: Shannon Prop Owner Address: 1801 Richards Rd

Toledo, OH 43607 419-322-7400

Owner Phone: 419-322-Product: Used Oil Capacity: 5000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 2

Owner: Shannon Prop
Owner Address: 1801 Richards Rd
Toledo, OH 43607

419-322-7400

Owner Phone: 419-32: Product: Diesel Capacity: 10000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 3

Owner: Shannon Prop
Owner Address: 1801 Richards Rd

Toledo, OH 43607

Owner Phone: 419-322-7400 Product: Used Oil

Capacity: 5000

Tank Status: Removed from Ground

Map ID MAP FINDINGS

Direction
Distance
Distance (ft.)

Distance (ft.)

EDR ID Number
Elevation Site

EDR ID Number
Database(s) EPA ID Number

FORMER BILCOR PLASTICS PLANT (Continued)

Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel
Piping Type: Not reported
Contact: JON AHLBERG
Contact Phone: 419-322-7400

Impressed Device:No

Install Date: Mar 28 1973

Release Detection:

Tank: Not reported Pipe: Not reported

Facility ID: 00001697

Tank ID: 4

Owner: Shannon Prop
Owner Address: 1801 Richards Rd

Toledo, OH 43607

Owner Phone: 419-322-7400

Product: UNK Capacity: 1000

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Bare Steel

Piping Type: Suction: No Valve At Tank

Contact: JON AHLBERG Contact Phone: 419-322-7400 Impressed Device:No

Install Date: Not reported

Release Detection:

Tank: Not reported Pipe: Not reported

13 PLAYFORD DODGE SALES INC

NNE N M99

1/4-1/2 HILLSDALE, MI 49242

2209 ft.

Relative: LUST:

Lower Facility ID: 00008488

Release Number: C-1671-91

Actual: Release Date: Aug 13 1991

1095 ft. Facility Status: Closed

District: Jackson District Office

Closed Date: Dec 12 2001 Owner Contact: Not reported

Owner Name: Playford Dodge Sales Inc

Owner Address: N M99

HILLSDALE, MI 49242

Country: USA

Owner Phone : (517) 437-3394
Contact : DONALD PLAYFORD
Facility Phone : (517) 437-3394

UST:

Facility ID: 00008488

Tank ID:

Owner: Playford Dodge Sales Inc

Owner Address: N M99

HILLSDALE, MI 49242

Owner Phone: 517-437-3394

UST

LUST

U000254358

N/A

U003425809

Map ID MAP FINDINGS Direction

Direction
Distance
Distance (ft.)

 $\begin{array}{ccc} \text{Distance (ft.)} & & \text{EDR ID Number} \\ \text{Elevation} & \text{Site} & & \text{Database(s)} & \text{EPA ID Number} \end{array}$ 

PLAYFORD DODGE SALES INC (Continued)

Product: Used Oil Capacity: 250

Tank Status: Removed from Ground
Constr Material: Asphalt Coated or Bare Steel

Piping Material: Galvani ed Steel Piping Type: Not reported

Contact: DONALD PLAYFORD Contact Phone: 517-437-3394

Impressed Device:No

Install Date: Mar 27 1982

Release Detection:

Tank: Not reported Pipe: Not reported

U000254358

#### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
HILLSDALE	C10E144070	BILCOR PLASTICS	411 CARLTON	40242	SHWS
HILLSDALE		STILLWELL KEN FORD MERCURY INC	M99 HWY		RCRIS-SQG. FINDS
HILLSDALE		METALLIST INC	195 W MECHANIC		RCRIS-SQG, FINDS
HILLSDALE	S103594997	KESSERLING, HOWARD 4	PERMIT 25301	49242	shws
HILLSDALE	1003871901	HILLSDALE COAL GASIFICATION FAC	WEST STREET	49242	SHWS
JONESVILLE	S103086241	LUCAS LF/JONESVILLE GARBAGE SRVC	220 MAUCK RD	49242	SHWS

# **EPA Waste Codes Addendum**

Code	Description
D001	IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
D008	LEAD
D010	SELENIUM
F005	THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Elapsed ASTM days: Provides confirmation that this EDR report meets or exceeds the 90-day updating requirement

of the ASTM standard.

### FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List

Source: EPA Telephone: N/A

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/21/03
Date Made Active at EDR: 12/08/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 11/03/03

Elapsed ASTM days: 35

Date of Last EDR Contact: 11/03/03

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 8

Telephone 215-814-5418 Telephone: 303-312-6774

**EPA Region 4** 

Telephone 404-562-8033

Proposed NPL: Proposed National Priority List Sites

Source: EPA Telephone: N/A

Date of Government Version: 10/14/03 Date of Data Arrival at EDR: 12/01/03

Date Made Active at EDR: 12/08/03 Elapsed ASTM days: 7

Database Release Frequency: Semi-Annually Date of Last EDR Contact: 11/03/03

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

Source: EPA

Telephone: 703-413-0223

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities

List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03

Database Release Frequency: Quarterly

Date of Data Arrival at EDR: 09/24/03

Elapsed ASTM days: 35

Date of Last EDR Contact: 09/24/03

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Source: EPA

Telephone: 703-413-0223

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to help cities, states, private investors and affected citizens to promote economic redevelopment of unproductive urban sites.

Date of Government Version: 09/11/03 Date Made Active at EDR: 10/29/03 Database Release Frequency: Quarterly Date of Data Arrival at EDR: 09/24/03 Elapsed ASTM days: 35 Date of Last EDR Contact: 09/24/03

CORRACTS: Corrective Action Report

Source: EPA

Telephone: 800-424-9346

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 09/17/03

Date Made Active at EDR: 11/11/03

Database Release Frequency: Semi-Annually

Date of Data Arrival at EDR: 10/01/03

Elapsed ASTM days: 41

Date of Last EDR Contact: 09/08/03

RCRIS: Resource Conservation and Recovery Information System

Source: EPA

Telephone: 800-424-9346

Resource Conservation and Recovery Information System. RCRIS includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs): generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs): generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 09/10/03 Date Made Active at EDR: 10/01/03 Database Release Frequency: Varies Date of Data Arrival at EDR: 09/11/03

Elapsed ASTM days: 20

Date of Last EDR Contact: 11/18/03

ERNS: Emergency Response Notification System

Source: National Response Center, United States Coast Guard

Telephone: 202-260-2342

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous

substances.

Date of Government Version: 12/31/02 Date Made Active at EDR: 02/03/03 Database Release Frequency: Annually

Date of Data Arrival at EDR: 01/27/03

Elapsed ASTM days: 7

Date of Last EDR Contact: 10/27/03

### FEDERAL ASTM SUPPLEMENTAL RECORDS

BRS: Biennial Reporting System

Source: EPA/NTIS Telephone: 800-424-9346

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01 Database Release Frequency: Biennially Date of Last EDR Contact: 10/01/03

Date of Next Scheduled EDR Contact: 12/15/03

CONSENT: Superfund (CERCLA) Consent Decrees

Source: EPA Regional Offices

Telephone: Varies

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: N/A
Database Release Frequency: Varies

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

ROD: Records Of Decision

Source: EPA

Telephone: 703-416-0223

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical

and health information to aid in the cleanup.

Date of Government Version: 07/09/03 Date of Last EDR Contact: 10/08/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/05/04

DELISTED NPL: National Priority List Deletions

Source: EPA Telephone: N/A

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300,425.(e), sites may be deleted from the

EPA deses to delete sites from the NPL. Iff accordance with 40 CFR 300.425.(e), sites may be deleted if

NPL where no further response is appropriate.

Date of Government Version: 10/21/03 Date of Last EDR Contact: 11/03/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 02/02/04

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report

Source: EPA Telephone: N/A

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 10/23/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 01/05/04

HMIRS: Hazardous Materials Information Reporting System

Source: U.S. Department of Transportation

Telephone: 202-366-4555

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 08/11/03 Date of Last EDR Contact: 10/23/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

MLTS: Material Licensing Tracking System Source: Nuclear Regulatory Commission

Telephone: 301-415-7169

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency,

EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/16/03 Date of Last EDR Contact: 10/07/03

Database Release Frequency: Quarterly Date of Next Scheduled EDR Contact: 01/05/04

MINES: Mines Master Index File

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Date of Government Version: 08/27/03 Date of Last EDR Contact: 10/01/03

Database Release Frequency: Semi-Annually

Date of Next Scheduled EDR Contact: 12/29/03

NPL LIENS: Federal Superfund Liens

Source: EPA

Telephone: 202-564-4267

Federal Superfund Liens. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability.

USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/91

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 11/21/03

Date of Next Scheduled EDR Contact: 02/23/04

PADS: PCB Activity Database System

Source: EPA

Telephone: 202-564-3887

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers

of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/30/03 Date of Last EDR Contact: 11/12/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 02/09/04

DOD: Department of Defense Sites

Source: USGS

Telephone: 703-648-5920

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 04/01/03 Date of Last EDR Contact: 11/12/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 02/09/04

STORMWATER: Storm Water General Permits Source: Environmental Protection Agency

Telephone: 202 564-0746

A listing of all facilities with Storm Water General Permits.

Date of Government Version: N/A Date of Last EDR Contact: N/A

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: N/A

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 07/15/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: Semi-Annually Date of Next Scheduled EDR Contact: 12/15/03

RMP: Risk Management Plans

Source: Environmental Protection Agency

Telephone: 202-564-8600

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: N/A

Database Release Frequency: N/A

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

RAATS: RCRA Administrative Action Tracking System

Source: EPA

Telephone: 202-564-4104

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/95

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 09/08/03

Date of Next Scheduled EDR Contact: 12/08/03

TRIS: Toxic Chemical Release Inventory System

Source: EPA

Telephone: 202-260-1531

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and

land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Annually

TSCA: Toxic Substances Control Act

Source: EPA

Telephone: 202-260-5521

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

Date of Government Version: 12/31/98 Date of Last EDR Contact: 09/02/03

Database Release Frequency: Every 4 Years Date of Next Scheduled EDR Contact: 12/08/03

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA

Telephone: 202-564-2501

Date of Government Version: 10/16/03 Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03 Database Release Frequency: Quarterly

SSTS: Section 7 Tracking Systems

Source: EPA

Telephone: 202-564-5008

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices

being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/01 Date of Last EDR Contact: 10/20/03

Database Release Frequency: Annually Date of Next Scheduled EDR Contact: 01/19/04

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the

Agency on a quarterly basis.

Date of Government Version: 10/16/03 Database Release Frequency: Quarterly Date of Last EDR Contact: 09/23/03

Date of Next Scheduled EDR Contact: 12/22/03

#### STATE OF MICHIGAN ASTM STANDARD RECORDS

SHWS: Contaminated Sites

Source: Department of Environmental Quality

Telephone: 517-373-9541

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 08/18/03 Date Made Active at EDR: 09/17/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 08/25/03 Elapsed ASTM days: 23

Date of Last EDR Contact: 11/24/03

SWF/LF: Solid Waste Facilities Database

Source: Department of Environmental Quality

Telephone: 517-335-4035

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/16/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 09/23/03 Elapsed ASTM days: 23

Date of Last EDR Contact: 10/27/03

LUST: Leaking Underground Storage Tank Sites Source: Department of Environmental Quality

Telephone: 517-373-8168

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 24 Date of Last EDR Contact: 09/15/03

UST: Underground Storage Tank Facility List Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 09/12/03 Date Made Active at EDR: 10/07/03 Database Release Frequency: Annually Date of Data Arrival at EDR: 09/15/03 Elapsed ASTM days: 22

Date of Last EDR Contact: 09/15/03

BEA: BASELINE ENVIRONMENTAL ASSESSMENT DATABASE

Source: DEPT. OF ENVIRONMENTAL QUALITY

Telephone: 517-373-9541

Date of Government Version: 09/16/03 Date Made Active at EDR: 10/09/03 Database Release Frequency: Semi-Annually Date of Data Arrival at EDR: 09/16/03 Elapsed ASTM days: 23

Date of Last EDR Contact: 09/15/03

TC1097812.4s Page GR-6

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 5 Telephone: 312-886-6136

Date of Government Version: 11/01/02 Date of Data Arrival at EDR: 11/12/02

Date Made Active at EDR: 12/04/02 Elapsed ASTM days: 22

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

HIST LF: Inactive Solid Waste Facilities
Source: Department of Environmental Quality

Telephone: 517-335-4034

The database contains historical information and is no longer updated.

Date of Government Version: 03/01/97 Date of Data Arrival at EDR: 02/28/03

Date Made Active at EDR: 03/06/03 Elapsed ASTM days: 6

Database Release Frequency: No Update Planned Date of Last EDR Contact: 02/28/03

INDIAN UST: Underground Storage Tanks on Indian Land

Source: EPA Region 8 Telephone: 303-312-6137

Date of Government Version: 03/17/03 Date of Data Arrival at EDR: 03/31/03

Date Made Active at EDR: 04/17/03 Elapsed ASTM days: 17

Database Release Frequency: Varies Date of Last EDR Contact: 11/24/03

### STATE OF MICHIGAN ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Tanks

Source: Department of Environmental Quality

Telephone: 517-373-8168

Registered Aboveground Storage Tanks.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 09/15/03

Database Release Frequency: No Update Planned Date of Next Scheduled EDR Contact: 12/15/03

DEL SHWS: Delisted List of Contaminated Sites Source: Department of Environmental Quality

Telephone: 517-373-9541

Sites that have been delisted or deleted from the List of Contaminated Sites. The available documentation for

the site does not support it's listing or the site no longer meets criteria specified in rules.

Date of Government Version: 09/23/03 Date of Last EDR Contact: 11/24/03

Database Release Frequency: Varies Date of Next Scheduled EDR Contact: 02/23/04

PEAS: Pollution Emergency Alerting System Source: Department of Environmental Quality

Telephone: 517-373-8427

Environmental pollution emergencies reported to the Department of Environmental Quality such as tanker accidents,

pipeline breaks, and release of reportable quantities of hazardous substances.

Date of Government Version: 10/04/03 Date of Last EDR Contact: 09/16/03

Database Release Frequency: Quarterly

Date of Next Scheduled EDR Contact: 01/05/04

#### EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively to EDR by Real Property Scan, Inc. ©Copyright 1993 Real Property Scan, Inc. For a technical description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Scan, Inc.

The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Scan. While reasonable steps have been taken to insure the accuracy of this report, Real Property Scan does not guarantee the accuracy of this report. Any liability on the part of Real Property Scan is strictly limited to a refund of the amount paid. No claim is made for the actual existence of toxins at any site. This report does not constitute a legal opinion.

#### **BROWNFIELDS DATABASES**

US BROWNFIELDS: A Listing of Brownfields Sites Source: Environmental Protection Agency

Telephone: 202-566-2777

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become BCRLF cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: N/A

Date of Last EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

Date of Next Scheduled EDR Contact: N/A

#### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: PennWell Corporation Telephone: (800) 823-6277

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Day Care Centers, Group & Family Homes

Source: Bureau of REgulatory Services

Telephone: 517-373-8300

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### STREET AND ADDRESS INFORMATION

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### GEOCHECK\* - PHYSICAL SETTING SOURCE ADDENDUM

#### TARGET PROPERTY ADDRESS

EAGLEPICHER 221 INDUSTRIAL DRIVE HILLSDALE, MI 49242

### TARGET PROPERTY COORDINATES

Latitude (North): 41.937199 - 41° 56' 13.9'' Longitude (West): 84.653603 - 84° 39' 13.0''

Universal Tranverse Mercator: Zone 16 UTM X (Meters): 694525.5 UTM Y (Meters): 4645253.0

Elevation: 1146 ft. above sea level

EDR's GeoCheck Physical Setting Source Addendum has been developed to assist the environmental professional with the collection of physical setting source information in accordance with ASTM 1527-00, Section 7.2.3. Section 7.2.3 requires that a current USGS 7.5 Minute Topographic Map (or equivalent, such as the USGS Digital Elevation Model) be reviewed. It also requires that one or more additional physical setting sources be sought when (1) conditions have been identified in which hazardous substances or petroleum products are likely to migrate to or from the property, and (2) more information than is provided in the current USGS 7.5 Minute Topographic Map (or equivalent) is generally obtained, pursuant to local good commercial or customary practice, to assess the impact of migration of recognized environmental conditions in connection with the property. Such additional physical setting sources generally include information about the topographic, hydrologic, hydrogeologic, and geologic characteristics of a site, and wells in the area.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata. EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

### GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aguifers).

### TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### TARGET PROPERTY TOPOGRAPHY

USGS Topographic Map:

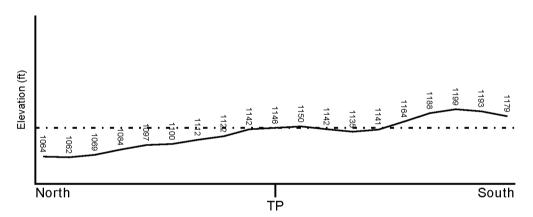
41084-H6 HILLSDALE, MI

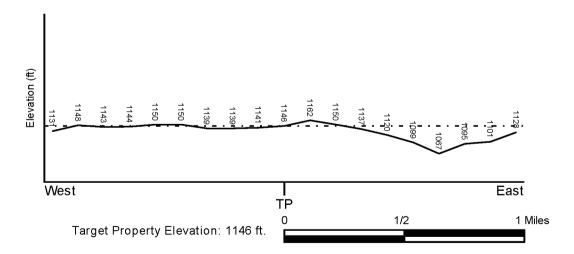
General Topographic Gradient: General NNW

Source:

USGS 7.5 min quad index

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

### HYDROLOGIC INFORMATION

Target Property County

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

FEMA Flood Electronic Data

HILLSDALE, MI Not Available

Flood Plain Panel at Target Property: Not Reported

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
HILLSDALE

NWI Electronic
Data Coverage
Not Available

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

#### AQUIFLOW<sup>•</sup>

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION
MAP ID FROM TP GROUNDWATER FLOW
Not Reported

<sup>\* ©1996</sup> Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

**ROCK STRATIGRAPHIC UNIT** 

GEOLOGIC AGE IDENTIFICATION

Era: Paleozoic Category: Stratified Sequence

System: Mississippian

Series: Osagean and Kinderhookian Series
Code: M1 (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: HOUGHTON

Soil Surface Texture: muck

Hydrologic Group: Class A/D - Drained/undrained hydrology class of soils that can be

drained and are classified.

Soil Drainage Class: Very poorly. Soils are wet to the surface most of the time. Depth to

water table is less than 1 foot, or is ponded.

Hydric Status: Soil meets the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: HIGH

Depth to Bedrock Min: > 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	9 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50
2	9 inches	66 inches	muck	A-8	Highly organic soils, Peat.	Max: 6.00 Min: 0.20	Max: 7.80 Min: 4.50

#### OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loamy sand

loam sandy loam

gravelly - sandy loam

Surficial Soil Types: loamy sand

loam sandy loam

gravelly - sandy loam

Shallow Soil Types: sand

sandy loam clay loam silty clay loam cobbly - sandy loam gravelly - sandy clay loam

Deeper Soil Types: fine sand

gravelly - sand stratified loam

sand and gravel

### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

According to ASTM E 1527-00, Section 7.2.2, "one or more additional state or local sources of environmental records may be checked, in the discretion of the environmental professional, to enhance and supplement federal and state sources... Factors to consider in determining which local or additional state records, if any, should be checked include (1) whether they are reasonably ascertainable, (2) whether they are sufficiently useful, accurate, and complete in light of the objective of the records review (see 7.1.1), and (3) whether they are obtained, pursuant to local, good commercial or customary practice." One of the record sources listed in Section 7.2.2 is water well information. Water well information can be used to assist the environmental professional in assessing sources that may impact groundwater flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u> <u>SEARCH DISTANCE (miles)</u>

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

FEDERAL USGS WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

No Wells Found

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

LOCATION MAP ID WELL ID FROM TP

1 MIWS30000000439 1/4 - 1/2 Mile SSE

STATE OIL/GAS WELL INFORMATION

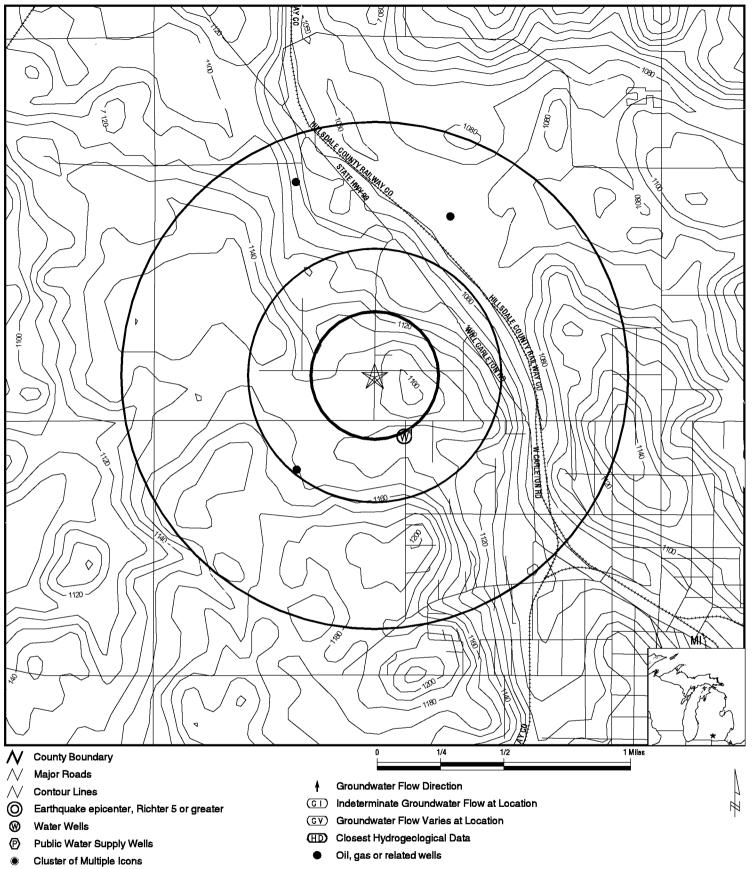
 DISTANCE
 DISTANCE

 FROM TP (Miles)
 FROM TP (Miles)

1/2 - 1 Mile NNW 1/2 - 1 Mile NNE

1/4 - 1/2 Mile SW

#### PHYSICAL SETTING SOURCE MAP - 1097812.4s



TARGET PROPERTY: EaglePicher CUSTOMER: Arcadis G & M ADDRESS: 221 Industrial Drive CITY/STATE/ZIP: Hillsdale MI 49242 INQUIRY #: 1097812.4s

LAT/LONG: 41.9372 / 84.6536 DATE: December 12, 2003 2:23 pm

## GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1 SSE 1/4 - 1/2 Mile Lower			MI WELLS	MIWS3000000439
Wellid: County: Name: Const. Date: Drill method: Welluse: Status: Depth pump:	3000000439 Hillsdale Not Reported 05/24/2000 00:00:00 Rotary-mud Not Reported Not Reported 138	Permitno: City: Well depth: Well type: Method Remarks: Use Remarks: Status Remarks: Pump time:	Not Reported Hillsdale 138 Not Reported Not Reported Not Reported Not Reported 1	
Pump capac: Longitude:	20 -84.65134	Latitude:	41.93371	

#### GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance
Database EDR ID Number

NNW 1/2 - 1 Mile OIL\_GAS 0000003737

Well No:

1

2

API Well No: 21059035260000

Permit No: 3526

Permit Date: 09/03/1936

HILLSDALE Slant: County: BH County: HILLSDALE Township: **FAYETTE** N/S Direction: Tier: 6 S 3 E/W Direction: W Range: 16 10-acre Fraction: NW Section: 40-acre Fraction: NW 160-acre Fraction: SE

Lease Name: BECK, JACOB
Permitted Owner: BECK JACOB

Permitted Owner: BECK JACOB Surface Owner: Not Reported

3502 1091 Depth: Elevation: Formation: **TRNTN** State Land: NO Federal Land: NO Well type: Dry Hole Surface X Coord: Well Status: Plugging Approved 1911200.690

 Well Status:
 Plugging Approved
 Surface X Coord:
 1911200.690

 Surface Y Coord:
 163516.400
 Bottom X Coord:
 1911200.690

 Bottom Y Coord:
 163516.400
 MGR Surface X Coord:
 611019.652

 MGR Surface Y Coord:
 156246.028
 MGR Bottom X Coord:
 611019.652

MGR Bottom Y Coord: 156246.028
Description: Dry Hole

NNE
1/2 - 1 Mile
OIL\_GAS
0000004237

Well No:

API Well No: 21059040040000

 Permit No:
 4004

 Permit Date:
 04/02/1937

 Slant:
 V

County: HILLSDALE BH County: HILLSDALE Township: **FAYETTE** Tier: 6 N/S Direction: S Range: 3 E/W Direction: W 15 Section: 10-acre Fraction: SE 40-acre Fraction: NW 160-acre Fraction: SW

Lease Name: BECK, JACOB

Permitted Owner: BECK JACOB Surface Owner: Not Reported

Elevation: 1070 Depth: 4275

Formation: PDC State Land: NO

Federal Land: NO Well type: Dry Hole

Well Status: Plugging Approved Surface X Coord: 1914432

 Well Status:
 Plugging Approved
 Surface X Coord:
 1914432.860

 Surface Y Coord:
 162778.870
 Bottom X Coord:
 1914432.860

 Bottom Y Coord:
 162778.870
 MGR Surface X Coord:
 612003.281

 MGR Surface Y Coord:
 156044.193
 MGR Bottom X Coord:
 612003.281

MGR Bottom Y Coord: 156044.193 Description: Dry Hole

#### GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS

Direction
Distance
Database EDR ID Number

SW 1/4 - 1/2 Mile OIL\_GAS 0000022709

API Well No: 21059217370000

Permit No: 21737
Permit Date: 07/27/1959

Slant: V County: HILLSDALE
BH County: HILLSDALE Township: HILLSDALE

N/S Direction: Tier: 6 S Range: 3 E/W Direction: W 21 Section: 10-acre Fraction: SW NW SE 40-acre Fraction: 160-acre Fraction: VAN AKEN Well No: Lease Name: 1

Permitted Owner: HANNERS OIL CO INC

Surface Owner: HANNERS OIL CO INC

Elevation: Not Reported Depth: Not Reported Formation: Not Reported State Land: NO

Federal Land: NO Well type: Dry Hole
Well Status: Plugging Approved Surface X Coord: 1911193.780
Surface Y Coord: 157521.460 Bottom X Coord: 1911193.780

Rettom Y Coord: 157521.460 MCR Surface X Coord: 611064.640

Bottom Y Coord: 157521.460 MGR Surface X Coord: 611054.649 MGR Surface Y Coord: 154422.201 MGR Bottom X Coord: 611054.649 MGR Bottom Y Coord: 154422.201 Description: Dry Hole

# GEOCHECK\* - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

#### AREA RADON INFORMATION

State Database: MI Radon

Radon Test Results

Test Type	Zip	Floor	Stop Date	Can 1 Res pCi/L	Can 1 Error	Can 2 Res pCi/L	Can 2 Error
<del></del>	_						
Random	49242	0	2/21/88	0.6	28.6%		
Random	49242	0	2/3/88	3.6	8.4%		
Random	49242	0	2/26/88	4.1	7.5%		
Random	49242	0	12/2/87	6.0	7.2%		
Random	49242	0	1/8/88	32.8	2.0%		
Geographic	49242	0	3/20/88	7.1	5.0%		

#### Federal EPA Radon Zone for HILLSDALE County: 1

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 49242

Number of sites tested: 5

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor Living Area - 2nd Floor	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported	Not Reported Not Reported
Basement	9 420 pCi/l	40%	40%	20%

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM) Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002. 7.5-Minute DEMs correspond to the USGS

1:24,000- and 1:25,000-scale topographic quadrangle maps.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOWR Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

#### ADDITIONAL ENVIRONMENTAL RECORD SOURCES

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STATE RECORDS

Water Well Data

Source: Department of Environmental Quality, Drinking Water and Radiological Protection Division

Telephone: 517-335-9218

Michigan Oil and Gas Wells

Source: Michigan Department of Natural Resources

Locations of oil and gas wells are compiled from permit records on file at the Geological Survey Division (GSD),

Michigan Department of Natural Resources.

#### RADON

State Database: MI Radon

Source: Department of Environmental Quality

Telephone: 517-335-9551 Radon Test Results

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# **ARCADIS**

## Appendix C

Aerial Photographs



# The EDR-Aerial Photography Print Service

Eagle Picher 221 Industrial Drive Hillsdale, MI 49242

December 16, 2003

Inguity # 1097812-7

# The Source For Environmental Risk Management Data

3530 Post Road Southport, Connecticut 06490

Nationwide Customer Service

Telephone: 1-800-352-0050 Fax: 1-800-231-6802

# **Environmental Data Resources, Inc. Aerial Photography Print Service**

Environmental Data Resources, Inc.'s (EDR) Aerial Photography Print Service is a screening tool designed to assist professionals in evaluating potential liability on a target property resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable means information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.4, the following *standard historical sources* may be used: aerial photographs, fire insurance maps, property tax files, land title records (although these cannot be the sole historical source consulted), topographic maps, city directories, building department records, or zoning/land use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2, page 12.)

#### **Aerial Photographs**

\* Michigan aerials delivered via e-mail and in JPEG format are for <u>One Time Use Only</u>. Further reproductions of these aerial images are prohibited without permission from EDR. \*

Aerial photographs are a valuable historical resource for documenting past land use and can be particularly helpful when other historical sources (such as city directories or fire insurance maps) are not reasonably ascertainable. The EDR Aerial Photograph Print Service includes a search of local aerial photograph collections flown by state and federal agencies for the state of Michigan. EDR's professional field-based researchers provide digitally reproduced historical aerial photographs at ten year intervals.

Please call EDR Inc. Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report.

Thank you for your business!

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Inquiry: 1097812.7 Year: 1938 Flyer: AAA Scale: 1"= 555.6'



Inquiry: 1097812.7 Year: 1955

Flyer : CSS



Inquiry: 1097812.7 Year: 1969

Flyer : ASCS

Scale: 1"= 555.6'



Inquiry: 1097812.7 Year: 1983 Flyer: NHAP Scale: 1"= 690'



Inquiry: 1097812.7 Year: 1997 Flyer: FSA Scale: Unknown

# **ARCADIS**

## Appendix D

Historic Topographic Maps



# The EDR-Historical **Topographic Map** Report

**EaglePicher** 135 E. South St. Hillsdale, MI 49242

December 17, 2003

Inquiry Number: 1097745-6

# The Source For Environmental **Risk Management** Data

3530 Post Road Southport, Connecticut 06490

**Nationwide Customer Service** 

Telephone: 1-800-352-0050 Fax: 1-800-231-6802

## **Environmental Data Resources, Inc. Historical Topographic Map Report**

Environmental Data Resources, Inc.'s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property, and its surrounding area, resulting from past activities. ASTM E 1527-00, Section 7.3 on Historical Use Information, identifies the prior use requirements for a Phase I environmental site assessment. The ASTM standard requires a review of reasonably ascertainable standard historical sources. Reasonably ascertainable is defined as information that is publicly available, obtainable from a source with reasonable time and cost constraints, and practically reviewable.

To meet the prior use requirements of ASTM E 1527-00, Section 7.3.2, the following standard historical sources may be used: aerial photographs, city directories, fire insurance maps, topographic maps, property tax files, land title records (although these cannot be the sole historical source consulted), building department records, or zoning/and use records. ASTM E 1527-00 requires "All obvious uses of the property shall be identified from the present, back to the property's obvious first developed use, or back to 1940, whichever is earlier. This task requires reviewing only as many of the standard historical sources as are necessary, and that are reasonably ascertainable and likely to be useful." (ASTM E 1527-00, Section 7.3.2 page 11.)

EDR's Historical Topographic Map Report includes a search of available public and private color historical topographic map collections.

#### Topographic Maps

A topographic map (topo) is a color coded line-and-symbol representation of natural and selected artificial features plotted to a scale. Topos show the shape, elevation, and development of the terrain in precise detail by using contour lines and color coded symbols. Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information. For example, topographic contours (brown); lakes, streams, irrigation ditches, etc. (blue); land grids and important roads (red); secondary roads and trails, railroads, boundaries, etc. (black); and features that have been updated using aerial photography, but not field verified, such as disturbed land areas (e.g., gravel pits) and newly developed water bodies (purple).

For more than a century, the USGS has been creating and revising topographic maps for the entire country at a variety of scales. There are about 60,000 U.S. Geological Survey (USGS) produced topo maps covering the United States. Each map covers a specific quadrangle (quad) defined as a four-sided area bounded by latitude and longitude. Historical topographic maps are a valuable historical resource for documenting the prior use of a property and its surrounding area, and due to their frequent availability can be particularly helpful when other standard historical sources (such as city directories, fire insurance maps, or aerial photographs) are not reasonably ascertainable.

# Please call EDR Nationwide Customer Service at 1-800-352-0050 (8am-8pm ET) with questions or comments about your report. Thank you for your business!

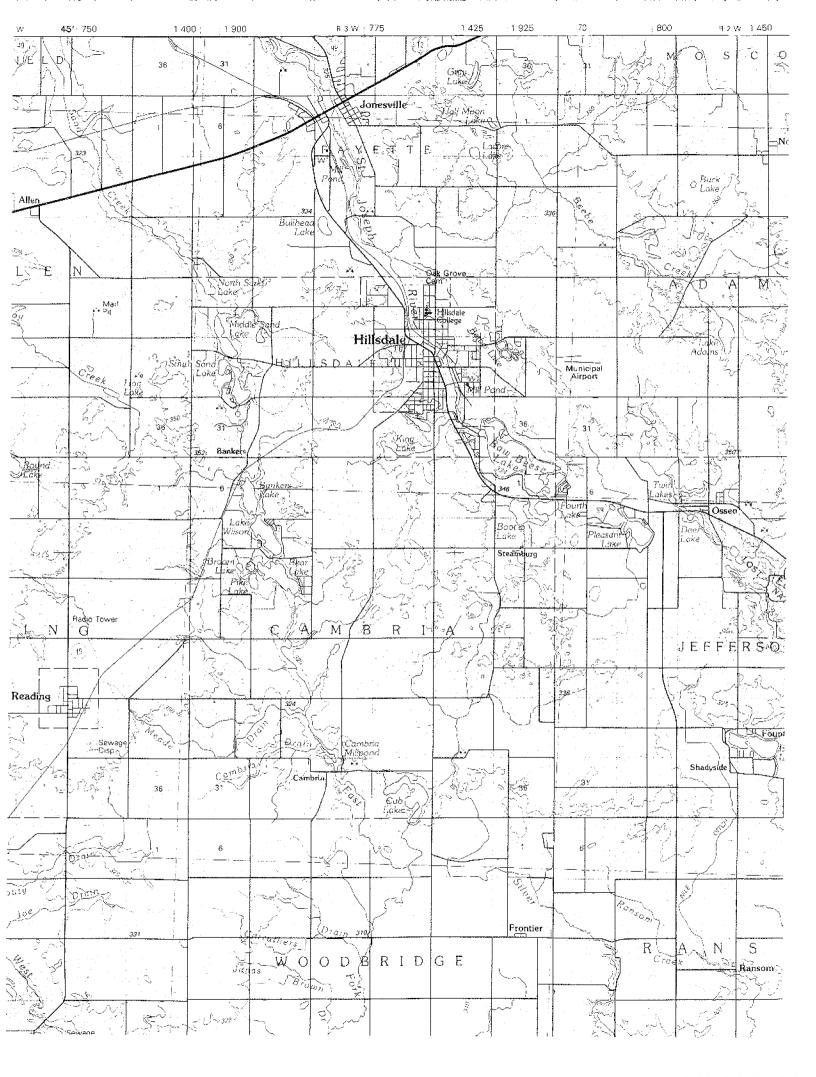
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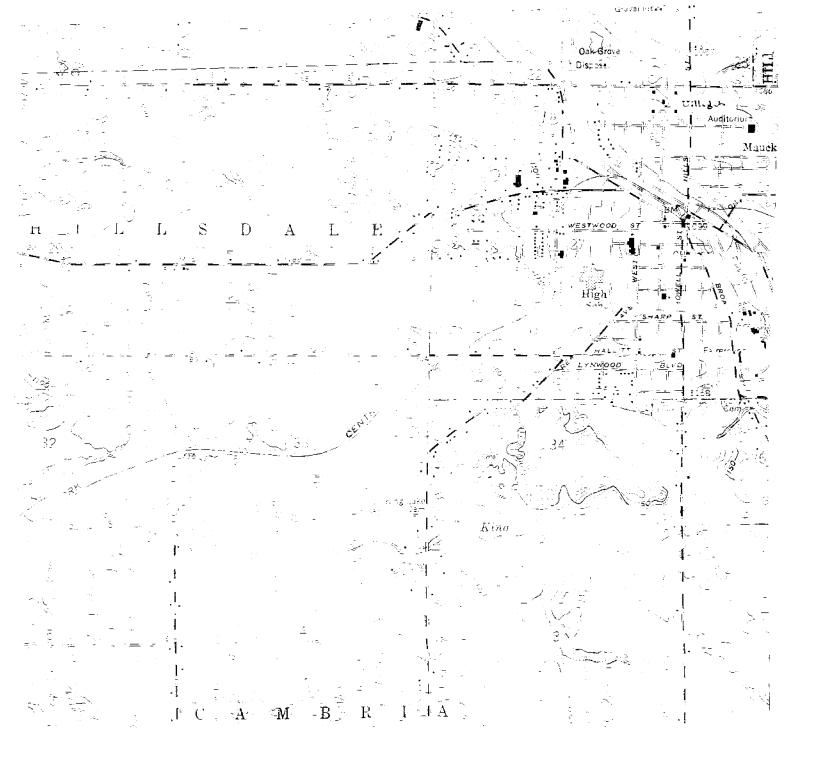


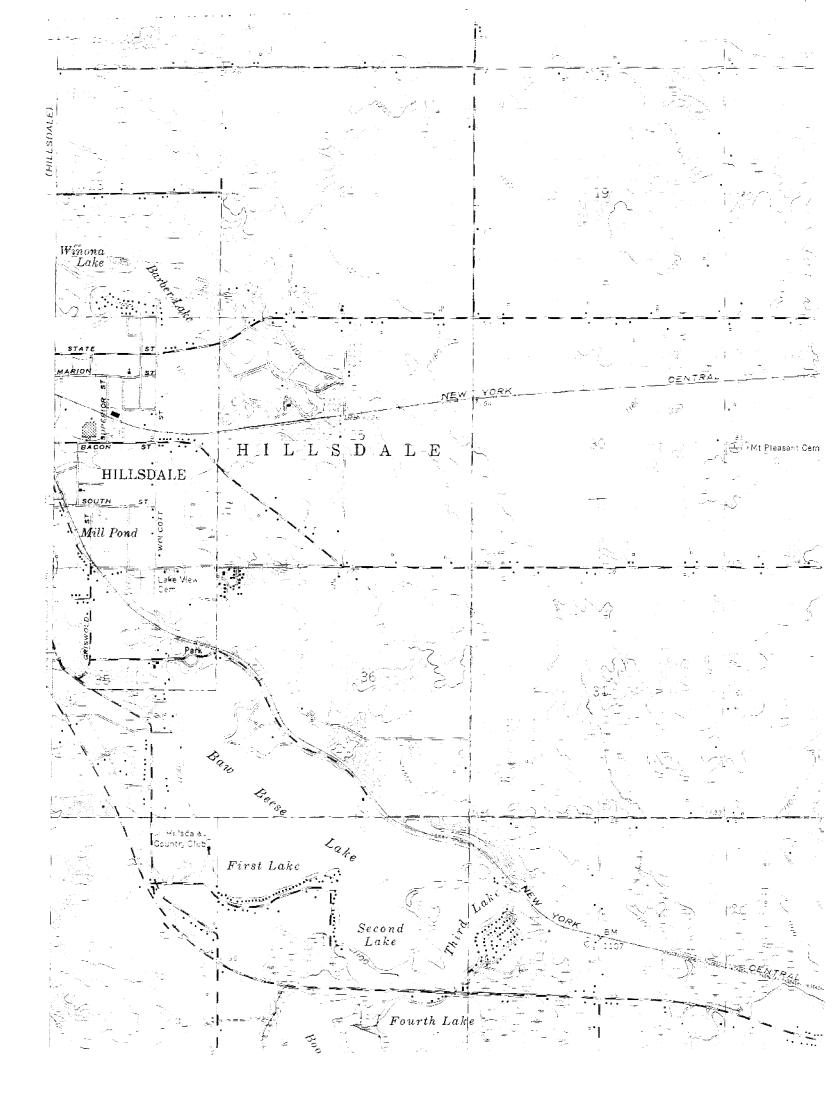
# Quadrangle Relation Chart

7.5 minute series Scale = 1: 24,000 

Target Quadrant		Adjoining Quadrant
	/ñ	<b>(</b> :







# **ARCADIS**

### **Appendix E**

Asbestos and Lead Building Inspection Report

#### ASBESTOS AND LEAD BUILDING INSPECTION REPORT

For the

Eagle Picher Facility 221 Industrial Drive Hillsdale, Michigan 49242

Investigation conducted by

Fibertec Industrial Hygiene Services, Inc. 1914 Holloway Drive Holt, Michigan 48842

Project # 18899-1

Project Date: March 10, 2004

Report Date: March 31, 2004

#### **Contents**

Introduction

Certification

**General Inspection Procedures** 

Results of Visual Inspection

**Bulk Sample Results** 

Summary of ACM Materials and Lead Paint

Conclusion

Recommendations

Appendices

- A. Bulk Paint Sample Log
- B. Bulk Paint Sample Analytical Report
- C. Room by Room Paint Building Inspection Forms
- D. Photograph Log

#### ASBESTOS AND LEAD BUILDING INSPECTION REPORT

#### For the

Eagle Picher Facility 221 Industrial Drive, Hillsdale, Michigan

Project #18899-1

#### INTRODUCTION

Fibertec Industrial Hygiene Services, Inc. (Fibertec IHS) was retained by Arcadis G&M, Inc., to perform an asbestos and lead inspection within the Eagle Picher facility, 221 Industrial Drive, Hillsdale, Michigan. The project was discussed with Ms. Dawn Sharvin prior to beginning the fieldwork. The inspection was designed to identify asbestos and lead containing materials within the plant.

The building inspection took place on March 10, 2004. During the inspection, bulk samples of suspect asbestoscontaining material (ACM) and suspect lead paint were collected. Collected asbestos bulk samples were submitted to the Fibertec IHS Polarized Light Microscopy (PLM) laboratory for analysis. Paint samples were submitted to the Fibertec, Inc. Analytical Laboratory for analysis.

#### **CERTIFICATION**

John Luna, a State of Michigan accredited asbestos building inspector, conducted the building inspection. Mr. Luna also maintains accreditation as an Asbestos Contractor/Supervisor. A copy of Mr. Luna's asbestos inspector credential appears in Appendix A.

John Walker, a trained polarized light microscopist, analyzed all bulk asbestos samples in the Fibertec IHS Polarized Light Microscopy (PLM) laboratory pursuant to the requirements of Environmental Protection Agency Method EPA/600/R-93/116. This laboratory maintains current National Voluntary Laboratory Accreditation Program (NVLAP) accreditation (Lab Code 101510-0). A copy of the Fibertec IHS NVLAP accreditation certificate appears in Appendix B.

Jeri Haney, a trained laboratory chemist, analyzed all lead paint samples in the Fibertec, Inc. Analytical Laboratory pursuant to EPA Method 6020. The Fibertec, Inc. Analytical Laboratory is a proficient participant in the NIOSH/AIHA PAT Program (Metals Laboratory).

#### **GENERAL INSPECTION PROCEDURES**

In an effort to identify asbestos-containing material (ACM) and lead-containing paint in all areas of the plant, an extensive inspection procedure was followed. A visual inspection of all rooms in the facility was combined with the collection of an appropriate number and distribution of bulk asbestos samples, including samples of the roof area.

Determination of suspect asbestos-containing material was based on visual examination, bulk sample analysis, material age and professional experience. Specifically, materials similar in color and texture were classified into homogenous areas (*e.g.*, white, drywall). An appropriate number and distribution of samples were collected from material in each homogenous area. All samples were analyzed by polarized light microscopy. When the results of analysis of all samples from a homogenous area indicate no asbestos present (less than or equal to one percent) the homogenous area is considered to be a non-asbestos containing material. When the results of analysis indicate asbestos present (in a quantity greater than one percent) in just one sample of those collected from a single homogenous area, the material in the entire homogenous area must be considered asbestos containing.

Destructive testing (*i.e.*, demolition) was not conducted as part of this asbestos building inspection. As such, quantities of ACM believed to exist in inaccessible areas (like pipe joint insulation and pipe hangers in wall cavities or above the plaster ceilings) have been estimated if necessary. Additionally, some asbestos-containing material hidden from view may be present (e.g., floor leveling compound beneath floor tile and/or linoleum) and may not have been accounted for as part of this inspection. Determination of lead paint was based on visual examination and bulk sample analysis. Specifically, a sample of each observed major paint color was collected pursuant to the

requirements of ASTM Standard E1729-95 <u>Standard Practice for Field Collection of Dried Paint Samples</u>. All paint samples were submitted to the Fibertec, Inc. Analytical Laboratory, Holt, Michigan for analysis. When results indicate lead levels at or above 0.5 weight percent, the paint is considered lead-based. When the results indicate lead present below 0.5 weight percent and at or above the detection limit, the paint is considered lead-containing. When the results indicate lead present below the method detection limit, the paint is considered non-lead containing.

#### RESULTS OF VISUAL INSPECTION

Based on the inspection, twenty-six distinct suspect asbestos-containing materials and eight major paint colors were identified in the Eagle Picher facility, 221 Industrial Drive, Hillsdale, Michigan. Some suspect asbestos-containing materials were sampled a number of times in different locations, drywall, being an example. All suspect asbestos-containing materials and suspect lead paint observed at the time of the inspection are listed in the Room by Room Asbestos and Lead Building Inspection Forms.

#### **BULK SAMPLE RESULTS**

The information gathered from the inspection is included in Appendices C (Bulk Asbestos and Paint Sample Log), D (Bulk Asbestos and Paint Sample Analytical Reports), E (Room by Room Asbestos and Lead Building Inspection Forms), and F (Photo Log).

#### SUMMARY OF ASBESTOS-CONTAINING MATERIALS AND LEAD PAINT

The following material was found to contain asbestos at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan:

White sink undercoating

The following materials were found not to contain asbestos at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan:

White window glazing compound

Drywall

Drywall joint compound

2' x 4', white, lay-in ceiling tile with pin holes and fissures

4" brown cove molding and associated mastic

4" black cove molding and associated mastic

12" x 12", brown floor tile with cream streaks and associated mastic

Cream burlap pattern vinyl wall covering

Cream, large flower pattern vinyl wall covering

Large leaf pattern vinvl wall covering border

Blue vinyl wall covering

Multi-color pastel vinyl wall covering

Cream marble pattern vinyl wall covering

Multi-colored vertical streaks vinyl wall covering

Green vinvl wall covering

Cork board and associated mastic

Cream linoleum and associated mastic

Green and black linoleum and associated mastic

Green linoleum with brown squares and associated mastic

Rust linoleum and associated mastic

Dark gray linoleum with white specks and associated mastic

Brown linoleum with black specks and associated mastic

Black window and door frame caulk

Roofing

The following materials were assumed to contain asbestos at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan:

Fire doors and frames

No paints were found to be lead-based (0.5% or greater lead by weight) at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan.

The following paint was found to be lead-containing (less than 0.5% lead by weight) at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan.

Blue paint
Brown paint
Dark gray paint (doors)
Gray paint (walls)
Orange paint
Red paint
White paint
Yellow paint

No paints were found to be non-lead containing at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan.

#### **CONCLUSION**

Undamaged, non-friable asbestos-containing white sink undercoating was found at the Eagle Picher Facility, 221 Industrial Drive, Hillsdale, Michigan. Fire doors and frames were assumed to contain asbestos. No other materials were found or assumed to contain asbestos.

All eight paints sampled were found to contain some (detectable quantity) of lead.

This inspection, to determine the location of asbestos containing building materials and lead paint, was conducted in accordance with the inspection provisions of the Asbestos Hazard Emergency Response Act (AHERA 40 CFR, Part 763), the EPA Asbestos Sampling Bulletin dated September 30, 1994, and current industry standards.

#### **RECOMMENDATIONS**

Based on the information collected during this building inspection, the following recommendations are offered. These recommendations may have to be adjusted if change of ownership, emergency, or other factors alter the condition, use or planned use of the building.

Perform the following in this case:

- Notify the owner, employees, building maintenance staff, contractors, and others who may encounter ACM during the routine execution of their job assignments of the presence, location, quantity and condition of the asbestos-containing sink undercoating, fire doors and frames, and lead paint. Ensure that contractors who work in the vicinity of or who may encounter potentially hazardous materials during the course of their work have successfully completed hazard awareness training. Ensure that contractors who work in the vicinity of or who may disturb the asbestos containing materials and/or the lead paint do so pursuant to the requirements of the Asbestos in Construction Standard 29 CFR 1926.1101 and the Lead in Construction Standard 29 CFR 1926.62.
- Given the undamaged condition of visible, accessible asbestos-containing sink undercoating in the kitchen/break area and the fire doors and frames manage them in place.
- In the event of building renovation or demolition, remove asbestos-containing materials from areas where they will be disturbed if renovation or demolition occurs. Control the dust generated from activities (e.g., demolition), which might generate lead dust and control lead exposure to within regulatory limits as required by the lead in Construction Standard 29 CFR 1926.62.
- Conduct on-site air monitoring during asbestos removal and lead-containing painted surface demolition and other lead paint disturbance activities to document compliance with applicable regulations and to document

acceptable air quality following the work. Ensure that employees have proper training and comply with all the provisions of the Asbestos and Lead in Construction Standards 29 CFR 1926.1101 and 29 CFR 1926.62, respectively.

#### **COST ESTIMATE**

A cost estimate to conduct the removal of asbestos-containing material is provided in Table 1.

# TABLE 1 ESTIMATED COST TO REMOVE REMAINING ASBESTOS CONTAINING\* MATERIALS AND LEAD PAINT

Remove white sink undercoating	1 sink	\$300.00/sink	\$300.00
Fire doors/frames	2 assemblies	\$300.00/assembly	\$600.00
Air monitoring during asbestos removal	1 day	\$600.00/day	\$600.00

**GRAND ESTIMATED TOTAL** 

\$1,500.00

\*The cost estimates are based on the findings of this inspection, current industry prices and current interpretation of the existing regulations. It is assumed that the work is performed by licensed, competent organizations. Estimates include all costs of abatement projects, except replacement. Estimated cost is based on project size, difficulty, access, and power and water being provided by the owner.

John Luna
Michigan Accredited Asbestos Inspector

A4665
Card #

Phillip A. Peterson
Vice President

DATE:	3/10/	2004	BUILDING:	Eagle Pi	cher Facility, 221 Indus	triai Drive	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
1	5,558 s.f.	MM	U	F	N	N	1	Main lobby closet, center, east wall.
						N	2	Reception office, north ceiling.
HA DESCRIF	PTION:				NOTES:			
	2' x 4', white I	ay-in ceiling ti	le with pin hole	es				
	and fissures	5.						
2	5,542 s.f.	MM	U	NF	N	N	3	Main lobby closet, NE corner.
						N	4	Main lobby closet, NW corner.
HA DESCRIF	PTION:				NOTES:	N	53	Main lobby closet, SW corner.
	Drywall.							
3	2,771 s.f.	MM	U	NF	N	N	5	Main lobby closet, NE corner.
						N	6	Main lobby closet, NW comer.
HA DESCRIF	PTION:				NOTES:	N	54	Main lobby closet, SW corner.
	Drywall joint of	compound.						
4	3,180 s.f.	MM	U	NF	N	N	7	Main lobby closet, NW corner.
						N	8	East window to lobby reception area, center, east wall.
HA DESCRIF	PTION:				NOTES:			
	Cream vinyl v	vall covering v	vith burlap patt	ern.				
<b></b>								
_					l	<u> </u>		NA - 1 - 1 - 1 - 2 - 2 - 2
5	90 s.f.	MM	U	NF	N	N	9	Main lobby closet, center, south floor.
LIA DECCE	I TION				NOTEO	N	10	East window to main lobby reception area.
HA DESCRIF	TION:				NOTES:	$\vdash$		
	Duet line Inc.	and! !	ad mastic					
	Rust linoleum	and associat	eu mastić.					
					†			
6	192 s.f.	MM	U	NF	N	N	11	Main lobby entrance area, NE corner.
	132 3.1.	IVIIVI		131-	IN IN	N	12	Main reception office area, SE corner.
HA DESCRIF	PTION:	1	I	<u> </u>	NOTES:	IN	12	ман тосерион отное агеа, OL comer.
I IM DESCRIF	TION.				INOTES.			
	Dark area line	Journ with	ito encole					
	Dark gray lind and associa		ite specks			$\vdash$		
	anu assucia	ateu mastic.						
					1	<u> </u>		

DATE:	3/10	/2004	BUILDING:	Eagle Pi	cher Facility, 221 Indus	cher Facility, 221 Industrial Drive		John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
7	888 s.f.	MM	U	F	N	N	13	Main hallway, SW corner, entering 3-room hall.
HA DESCRIF	DTION:				NOTES:	N	14	East/west main hallway, SW corner.
HA DESCRIP	TION.				NOTES.			
	Cream-colore	ed vinyl wall co	vering with lar	ge				
	flower patte							
8	132 s.f.	ММ	U	NF	N	N	15	Main lobby, north wall.
0	132 5.1.	IVIIVI		INF	IN	N	16	East/west main hallway, NE corner.
HA DESCRIF	PTION:		'		NOTES:			, , , , , , , , , , , , , , , , , , , ,
	Brown and gr	een ∨inyl wall	border with lar	ge				
	leaf pattern							
						$\vdash$		
	Ι							
9	312 s.f.	MM	U	NF	N	N	17	North/south main hallway, SE corner.
						N	18	East/west main hallway, NE corner.
HA DESCRIF	PTION:				NOTES:			
	Blue vinyl wa	ll covering.						
10	980 s.f.	MM	U	NF	N	N	19	Main lobby closet, NW corner.
						N	20	East window to lobby reception area, center, east wall.
HA DESCRIF	PTION:				NOTES:			
	Cream linole	ım and associ	iated mastic					
	Cream inforce	ann and associ	atea mastic.					
	_							
	E00 : 1		.,	N.E	, A.	<b>.</b>	04	Describing office. NIT agrees
11	560 s.f.	MM	U	NF	N	N N	21	Reception office, NE corner.  Women's restroom off main hallway, SW corner.
HA DESCRIF	PTION:	1	I		NOTES:	<u>'`</u>		Tamana room on main manifully, Ove contor.
	Multi-colored	pastel vinyl w	all covering.					
						<del>                                     </del>		
12	1,576 s.f.	MM	U	NF	N	N	23	Men's restroom, main lobby, SW corner.
						N	24	Conference room, SW corner.
HA DESCRIF	PTION:				NOTES:			
	Cream vinyl v	vall covering v	vith marble pat	tern.				
						$\vdash$		
						$\vdash$		

DATE:	3/10/	/2004	BUILDING:	Eagle Pid	cher Facility, 221 Indus	strial Drive	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
13	2,814 s.f.	MM	U	NF	N	N	25	SE room of 3-room lobby entrance to plant.
						N	26	NE room of 3-room lobby entrance to plant.
HA DESCRIF	PTION:				NOTES:			
			vith marble pat	tern				
	and associa	ated mastic.						
14	16 s.f.	MM	U	NF	N	N	27	Main hallway closet area, NW corner.
						N	28	Main hallway closet area, SW corner.
HA DESCRIF	PTION:				NOTES:			
		ım with brown	squares and					
	associated	mastic						
						$\vdash$		
15	2 ct.	MM	U	NF	Assumed	Assumed	29	
						Assumed	30	
HA DESCRIF	PTION:				NOTES:			
	Fire door and	frame.						
						$\vdash$		
		ı	1					
40	111 - 5			NIE	l N	N.	24	C
16	144 s.f.	MM	U	NF	N	N N	31 32	Center west wall, east window to main lobby reception.
HA DESCRIF	OTION!				NOTES:	N	32	NW wall, east window to main lobby reception.
HA DESCRIP	TION.				NOTES.			
	Multi-colored	vinyl wall cove	ering with verti	cal etroake				
	Widiti-colored	VIIIyi Wali COVE	ening with vert	cai sireaks.				
17	72 s.f.	MM	U	NF	N	N	33	Conference room, NW corner.
						N	34	Conference room, NE corner.
HA DESCRIF	PTION:			•	NOTES:	<u> </u>	<u> </u>	
	Green vinyl w	vall covering				$\Box$		
					1			
					1			
					<u> </u>			
18	120 s.f.	MM	U	F	N	N	35	Conference room, NE corner.
						N	36	Conference room, SE corner.
HA DESCRIF	TION:	-			NOTES:			
					1			
	Cork board a	nd associated	mastic.					
					1			
					1			
i								

DATE:	3/10/	/2004	BUILDING:	Eagle Pi	cher Facility, 221 Indus	strial Drive	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
19	272 s.f.	MM	U	NF	N	N	37	SE room of 3-room lobby entrance to plant.
						N	38	NE room of 3-room lobby entrance to plant.
HA DESCRIF	PTION:				NOTES:			
	4", black cove	e molding and	associated ma	astic.				
						$\vdash$		
					-			
20	15 at		U	NIE	NI NI	NI NI	20	Facturall parth side in plant
20	15 ct.	MM		NF	N	N N	39 40	East wall, north side in plant.
HA DESCRIF	DTION:	l .			NOTES:	IN	40	East wall, south side in plant.
HA DESCRIP	TION.				NOTES.			
	\A/laita in da	u alazina samu	an un d					
	vvriite wiridov	v glazing com	ound.					
						$\vdash$		
						$\vdash$		
		I	I					
21	360 s.f.	MM	U	NF	N	N	41	NE corner of north shipping office
21	300 5.1.	IVIIVI		INI		N	42	SE corner of south shipping office.
HA DESCRIF	PTION:	<u> </u>			NOTES:	IN	72	on corner of south shipping office.
I I/( DEGOINII	11014.				140 120.			
	Brown linoleu	ım with black s	snecks and					
	associated		эрсоко апа					
	accontacca	masas.						
22	80 s.f.	ММ	U	NF	N	N	43	First Aid room, NW corner.
						N	44	First Aid room, SE corner.
HA DESCRIF	PTION:	•			NOTES:			
	12" x 12", bro	wn floor tile w	ith cream-colo	red streaks				
	and associa	ated mastic						
23	46 s.f.	MM	U	NF	N	N	45	First Aid room, SE corner.
						N	46	First Aid room, NW corner.
HA DESCRIF	PTION:				NOTES:			
	4", brown cov	e molding and	d associated m	astic.				
						$\vdash$		
	_							
I .		l .				$\vdash$		
24	92,000 s.f.	MM	U	F	N	N	47	North center of roof.
=====	<u></u>	<u> </u>	l .			N	48	South center of roof.
HA DESCRIF	TION:				NOTES:	$\vdash$		
	D6		دنداد			$\vdash$		
	Rooting mate	erial (rubber an	id tar).			$\vdash$		
						$\vdash$		
						$\vdash$		
						$\vdash$		
						!		

DATE:	3/10/	2004	BUILDING:	Eagle Pic	her Facility, 221 Indus	trial Drive	INSPECTOR:	John Luna
HA#	TOTAL FOOTAGE	MATERIAL TYPE	MATERIAL CONDITION	F/NF	MATERIAL ACM (Y/N)	ASBESTOS DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
25	155 l.f.	MM	U	NF	N	N		SW corner of main entryway (doorway window).
						N	50	North window, main lobby area (outside).
HA DESCRIF	PTION:				NOTES:			
	Black window	and door fran	ne caulk					
	DIACK WITIGOW	and door nai	ne cault.					
26	1 ct.	MM	U	NF	Υ	Y		Main lobby hallway, kitchenette area.
LIA DECODIE	TION				NOTEO	N/A	52	Main lobby hallway, kitchenette area.
HA DESCRIF	TION:				NOTES:			
	White sink un	dercoating						
	VVIIIC SIIIK GII	dereeding.						
						<del>                                     </del>		

#### PAINT SAMPLE LOG

DATE:	3/10/2004	BUILDING: Eagle Pic	oner Facility, 221 Indust	riai Drive	INSPECTOR:	John Luna
HA#	MATERIAL TYPE	MATERIAL CONDITION	MATERIAL LEAD-CONTAINING (Y/N)	LEAD DETECTED* (Y/N)	SAMPLE #	SAMPLE LOCATION
1	Paint	Undamaged	Y	Υ	PB-1	SE room, central hallway leading to plant.
HA DESCRIF	PTION:		NOTES:			
	Light gray wall paint.					
2	Paint	Undamaged	Υ	Y	PB-2	Door of SE room, central hallway leading to plant.
HA DESCRIF	PTION:		NOTES:			
	Dark gray door paint					
	Dark gray door paint.					
3	Paint	Undamaged	Y	Υ	PB-3	SE room, central hallway leading to plant.
LIA DECODIE	TION.		NOTEO			
HA DESCRIF	PHON:		NOTES:			
	White wall paint.					
						2
4	Paint	Undamaged	Y	Υ	PB-4	SW corner, central hallway leading to plant.
HA DESCRIF	PTION:		NOTES:			
	D. 6					
	Blue floor paint.					
5	Paint	Undamaged	Y	Υ	PB-5	NE corner, east walkway in plant.
LIA DECODIE			NOTES			
HA DESCRIF	TION:		NOTES:			
	Yellow floor paint.					
	D.: .	l la de			DD 2	Oursethern OF commentate
6	Paint	Undamaged	Y	Υ	PB-6	Support beam, SE corner of plant.
HA DESCRIF	PTION:		NOTES:			
	D 1					
	Red paint.					

#### PAINT SAMPLE LOG

DATE.	3/10/2004	BUILDING: Eagle Pi	mer Facility, 221 mousi	nai Drive	INSPECTOR.	John Luna
			MATERIAL	LEAD		
	MATERIAL	MATERIAL	LEAD-CONTAINING	DETECTED*	SAMPLE	
HA#	TYPE	CONDITION	(Y/N)	(Y/N)	#	SAMPLE LOCATION
			l '	` ´ I		
1	Paint	Undamaged	Υ	Υ	PB-7	Abandoned power panel, SE corner of plant
HA DESCRIP	PTION:		NOTES:			
	Orange paint (machine pow	ver supply boxes)				
8	Paint	Undamaged	Υ	Υ	PB-8	South, outside wall
٥	ı allıt	Ondamaged	'	'	1 0-0	South, outside wall
HA DESCRIP	PTION:		NOTES:			
	Drown point					
	Brown paint.					
HA DESCRIP	PTION:		NOTES:			
HA DESCRIP	PTION:		NOTES:			
I IA DEGUNII	TION:		NOTES.			
HA DESCRIP	PTION:		NOTES:			
HA DESCRIP	PTION:		NOTES:			
<u> </u>						



CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
1	1	2' X 4' WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, MAIN LOBBY CLOSET, CENTER, EAST WALL.	N			SDD	45% FIBROUS GLASS 45% CELLULOSE 10% NON-FIBROUS MATTER
2	2	2' X 4' WHITE LAY-IN CEILING TILE WITH PIN HOLES AND FISSURES, RECEPTION OFFICE, NORTH CEILING.	N			SDD	45% FIBROUS GLASS 45% CELLULOSE 10% NON-FIBROUS MATTER
3	3	GRAY DRYWALL, MAIN LOBBY CLOSET, NE CORNER, LAYER 1 OF 2.	N			SDD	98% NON-FIBROUS MATTER 2% CELLULOSE
3	3	BROWN MATERIAL ON GRAY DRYWALL, MAIN LOBBY CLOSET, NE CORNER, LAYER 2 OF 2.	N			SDD	97% CELLULOSE 3% NON-FIBROUS MATTER
4	4	GRAY DRYWALL, MAIN LOBBY CLOSET, NW CORNER, LAYER 1 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE
4	4	BROWN MATERIAL ON GRAY DRYWALL, MAIN LOBBY CLOSET, NW CORNER, LAYER 2 OF 2.	N			SDD	96% CELLULOSE 4% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

PROJECT: EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI

54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED. C.O.C. NO.: 42700

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FIBERTEC	CLIENT		*ASBESTOS				NON-ASBESTOS-
SAMPLE	I.D.	DESCRIPTION/	PRESENT	ASBESTOS	PERCENT	ТЕСН.	CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
5	5	WHITE DRYWALL JOINT COMPOUND, MAIN LOBBY CLOSET, NE CORNER.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE
6	6	WHITE DRYWALL JOINT COMPOUND, MAIN LOBBY CLOSET, NW CORNER.	N			JAW	94% NON-FIBROUS MATTER 6% CELLULOSE
7	7	CREAM-COLORED VINYL WALL COVERING WITH BURLAP PATTERN, MAIN LOBBY CLOSET, NW CORNER.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
8	8	CREAM-COLORED VINYL WALL COVERING WITH BURLAP PATTERN, EAST WINDOW TO LOBBY RECEPTION AREA, CENTER, EAST WALL.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
9	9	RUST-COLORED LINOLEUM, MAIN LOBBY CLOSET, CENTER, SOUTH FLOOR, LAYER 1 OF 2.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
9	9	BLACK MASTIC ON RUST-COLORED LINOLEUM, MAIN LOBBY CLOSET, CENTER SOUTH FLOOR, LAYER 2 OF 2.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE

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CLIENT P.O.#: N/A



CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
10	10	RUST-COLORED LINOLEUM, EAST WINDOW TO MAIN LOBBY RECEPTION AREA, LAYER 1 OF 2.	N			JAW	50% NON-FIBROUS MATTER 50% CELLULOSE
10	10	BLACK MASTIC ON RUST-COLORED LINOLEUM, EAST WINDOW TO MAIN LOBBY RECEPTION AREA, LAYER 2 OF 2.	N			JAW	92% NON-FIBROUS MATTER 8% CELLULOSE
11	11	DARK GRAY LINOLEUM WITH GRAY SPECKS, MAIN LOBBY ENTRANCE AREA, NE CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
11	11	YELLOW MASTIC ON DARK GRAY LINOLEUM WITH GRAY SPECKS, MAIN LOBBY ENTRANCE AREA, NE CORNER, LAYER 2 OF 2.	N			SDD	100% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510
FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
12	12	DARK GRAY LINOLEUM WITH GRAY SPECKS, MAIN LOBBY ENTRANCE AREA, SE CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
12	12	YELLOW MASTIC ON DARK GRAY LINOLEUM WITH GRAY SPECKS, MAIN LOBBY ENTRANCE AREA, SE CORNER, LAYER 2 OF 2.	N			SDD	100% NON-FIBROUS MATTER
13	13	CREAM-COLORED VINYL WALL COVERING WITH LARGE FLOWER PATTERN, MAIN HALLWAY, SW CORNER, ENTERING 3-ROOM HALL.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
14	14	CREAM-COLORED VINYL WALL COVERING WITH LARGE FLOWER PATTERN, E/W MAIN HALLWAY, SW CORNER.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER
15	15	BROWN & GREEN VINYL WALL BORDER WITH LARGE LEAF PATTERN, MAIN LOBBY, NORTH WALL.	N			JAW	65% CELLULOSE 35% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

ALE, MI **CLIENT P.O.#:** N/A

**C.O.C. NO.:** 42700

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI 54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
16	16	BROWN & GREEN VINYL WALL BORDER WITH LARGE LEAF PATTERN, E/W MAIN HALLWAY, NE CORNER.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
17	17	BLUE VINYL WALL COVERING, N/S MAIN HALLWAY, SE CORNER.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
18	18	BLUE VINYL WALL COVERING, E/W MAIN HALLWAY, NE CORNER.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
19	19	CREAM-COLORED LINOLEUM, MAIN LOBBY CLOSET, NE CORNER, LAYER 1 OF 2.	N			JAW	50% NON-FIBROUS MATTER 50% CELLULOSE
19	19	BROWN MASTIC ON CREAM-COLORED LINOLEUM, MAIN LOBBY CLOSET, NE CORNER, LAYER 2 OF 2.	N			JAW	88% NON-FIBROUS MATTER 12% CELLULOSE

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FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
20	20	CREAM-COLORED LINOLEUM, EAST WINDOW TO LOBBY RECEPTION AREA, CENTER, EAST WALL, LAYER 1 OF 2.	N			JAW	55% CELLULOSE 45% NON-FIBROUS MATTER
20	20	BROWN MASTIC ON CREAM-COLORED LINOLEUM, EAST WINDOW TO LOBBY RECEPTION AREA, CENTER, EAST WALL, LAYER 2 OF 2.	N			JAW	90% NON-FIBROUS MATTER 10% CELLULOSE
21	21	MULTICOLORED PASTEL VINYL WALL COVERING, RECEPTION OFFICE, NE CORNER.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
22	22	MULTICOLORED PASTEL VINYL WALL COVERING, WOMEN'S RESTROOM OFF MAIN HALLWAY, SW CORNER.	N			SDD	90% CELLULOSE 10% NON-FIBROUS MATTER
23	23	CREAM-COLORED VINYL WALL COVERING, MEN'S RESTROOM, MAIN LOBBY, SW CORNER.	N			SDD	85% CELLULOSE 15% NON-FIBROUS MATTER

COMMENTS:

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CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A
C.O.C. NO.: 42700

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24	24	CREAM-COLORED VINYL WALL COVERING, CONFERENCE ROOM, SW CORNER.	N			SDD	85% CELLULOSE 15% NON-FIBROUS MATTER
25	25	GREEN & BLACK LINOLEUM WITH MARBLE PATTERN, SE ROOM OFF 3-ROOM LOBBY ENTRANCE TO PLANT.	N			JAW	50% CELLULOSE 50% NON-FIBROUS MATTER
26	26	GREEN & BLACK LINOLEUM WITH MARBLE PATTERN, NE ROOM OFF 3-ROOM LOBBY ENTRANCE TO PLANT.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
27	27	GREEN LINOLEUM WITH BROWN SQUARES, MAIN HALLWAY CLOSET AREA, NW CORNER, LAYER 1 OF 2.	N			SDD	85% NON-FIBROUS MATTER 15% CELLULOSE
27	27	YELLOW MASTIC ON GREEN LINOLEUM WITH BROWN SQUARES, MAIN HALLWAY CLOSET AREA, NW CORNER, LAYER 2 OF 2.	N			SDD	97% NON-FIBROUS MATTER 3% CELLULOSE

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FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

Bulk samples are analyzed utilizing the USEPA Test Method EPA/600/R-93/116. The constituent percent reported represents an estimate of the area percent of the component. The test report relates only to items tested. This report is not intended to be used as a product endorsement by NVLAP or any agency of the U.S. Government. Fine fibers like those in floor tile may not be discernible by this method. This report shall not be reproduced, except in full, without written approval of the laboratory.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
28	28	GREEN LINOLEUM WITH BROWN SQUARES, MAIN HALLWAY CLOSET AREA, SW CORNER.	N			SDD	85% NON-FIBROUS MATTER 15% CELLULOSE
31	31	MULTICOLORED VINYL WALL COVERING WITH VERTICAL STREAKS, CENTER WEST WALL, EAST WINDOW TO MAIN LOBBY RECEPTION.	N			SDD	50% NON-FIBROUS MATTER 50% CELLULOSE
32	32	MULTICOLORED VINYL WALL COVERING WITH VERTICAL STREAKS, NW WALL, EAST WINDOW TO MAIN LOBBY RECEPTION.	N			SDD	50% NON-FIBROUS MATTER 50% CELLULOSE
33	33	GREEN VINYL WALL COVERING, CONFERENCE ROOM, NW CORNER.	N			JAW	70% CELLULOSE 30% NON-FIBROUS MATTER
34	34	GREEN VINYL WALL COVERING, CONFERENCE ROOM, NE CORNER.	N			JAW	70% CELLULOSE 30% NON-FIBROUS MATTER

COMMENTS:

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0382



CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
35	35	BROWN CORK BOARD, CONFERENCE ROOM, NE CORNER.	N			SDD	100% NON-FIBROUS MATTER
36	36	BROWN CORK BOARD, CONFERENCE ROOM, SE CORNER.	N			SDD	100% NON-FIBROUS MATTER
37	37	4" BLACK COVE MOLDING, SE ROOM OF 3-ROOM LOBBY ENTRANCE TO PLANT, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
37	37	BROWN MASTIC ON 4" BLACK COVE MOLDING, SE ROOM OF 3-ROOM LOBBY ENTRANCE TO PLANT, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
38	38	4" BLACK COVE MOLDING, NE ROOM OF 3-ROOM LOBBY ENTRANCE TO PLANT, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
38	38	BROWN MASTIC ON 4" BLACK COVE MOLDING, NE ROOM OF 3-ROOM LOBBY ENTRANCE TO PLANT, LAYER 2 OF 2.	N			JAW	96% NON-FIBROUS MATTER 4% CELLULOSE

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CLIENT: ARCADIS

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FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

CLIENT P.O.#: N/A
C.O.C. NO.: 42700

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FIBERTEC	CLIENT		*ASBESTOS				NON-ASBESTOS-
SAMPLE	I.D.	DESCRIPTION/	PRESENT	ASBESTOS	PERCENT	ТЕСН.	CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
39	39	WHITE WINDOW GLAZE, EAST WALL, NORTH SIDE IN PLANT.	N			SDD	100% NON-FIBROUS MATTER
40	40	WHITE WINDOW GLAZE, EAST WALL, SOUTH SIDE IN PLANT.	N			SDD	100% NON-FIBROUS MATTER
41	41	BROWN LINOLEUM WITH BLACK SPECKS, NE CORNER OF N SHIPPING OFFICE, LAYER 1 OF 2.	N			JAW	50% NON-FIBROUS MATTER 50% CELLULOSE
41	41	WHITE MASTIC ON BROWN LINOLEUM WITH BLACK SPECKS, NE CORNER OF N SHIPPING OFFICE, LAYER 2 OF 2.	N			JAW	97% NON-FIBROUS MATTER 3% CELLULOSE
42	42	BROWN LINOLEUM WITH BLACK SPECKS, SE CORNER OF S SHIPPING OFFICE, LAYER 1 OF 2.	N			JAW	60% CELLULOSE 40% NON-FIBROUS MATTER
42	42	WHITE MASTIC ON BROWN LINOLEUM WITH BLACK SPECKS, SE CORNER OF S SHIPPING OFFICE, LAYER 2 OF 2.	N			JAW	95% NON-FIBROUS MATTER 5% CELLULOSE

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CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

PROJECT: EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI

54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
43	43	12" X 12" BROWN FLOOR TILE WITH CREAM-COLORED STREAKS, FIRST AID ROOM, NW CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
43	43	BROWN MASTIC ON 12" X 12" BROWN FLOOR TILE WITH CREAM-COLORED STREAKS, FIRST AID ROOM, NW CORNER, LAYER 2 OF 2.	N			SDD	100% NON-FIBROUS MATTER
44	44	12" X 12" BROWN FLOOR TILE WITH CREAM-COLORED STREAKS, FIRST AID ROOM, SE CORNER, LAYER 1 OF 2.	N			SDD	100% NON-FIBROUS MATTER
44	44	BROWN MASTIC ON 12" X 12" BROWN FLOOR TILE WITH CREAM-COLORED STREAKS, FIRST AID ROOM, SE CORNER, LAYER 2 OF 2.	N			SDD	100% NON-FIBROUS MATTER

COMMENTS:

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CLIENT P.O.#: N/A

**C.O.C. NO.:** 42700



CLIENT: ARCADIS

DATE SUBMITTED: 3/12/04

NVLAP ACCREDITATION #101510

FIBERTEC PROJECT NO.: 18899-1

DATE ANALYZED: 3/18/04

**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
54 COLLECTED BULK SAMPLES, 68 SAMPLE LAYERS ANALYZED.

C.O.C. NO.: 42700

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FIBERTEC	CLIENT		*ASBESTOS				NON-ASBESTOS-
SAMPLE	I.D.	DESCRIPTION/	PRESENT	ASBESTOS	PERCENT	ТЕСН.	CONTAINING
NO.	NO.	LOCATION	Y/N	TYPE	ASBESTOS	INIT.	PORTION
45	45	4" BROWN COVE MOLDING, FIRST AID ROOM, SE CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
45	45	BROWN MASTIC ON 4" BROWN COVE MOLDING, FIRST AID ROOM, SE CORNER, LAYER 2 OF 2.	N			JAW	93% NON-FIBROUS MATTER 7% CELLULOSE
46		4" BROWN COVE MOLDING, FIRST AID ROOM, NW CORNER, LAYER 1 OF 2.	N			JAW	100% NON-FIBROUS MATTER
46	46	BROWN MASTIC ON 4" BROWN COVE MOLDING, FIRST AID ROOM, NW CORNER, LAYER 2 OF 2.	N			JAW	94% NON-FIBROUS MATTER 6% CELLULOSE
47	47	BLACK ROOFING MATERIAL (RUBBER AND TAR), NORTH CENTER OF ROOF.	N			SDD	100% NON-FIBROUS MATTER
48	48	BLACK ROOFING MATERIAL (RUBBER AND TAR), SOUTH CENTER OF ROOF.	N			SDD	100% NON-FIBROUS MATTER

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49	49	BLACK WINDOW AND DOOR FRAME CAULK, SW CORNER OF MAIN ENTRYWAY (DOORWAY WINDOW),.	N			JAW	100% NON-FIBROUS MATTER
50	50	BLACK WINDOW AND DOOR FRAME CAULK, NORTH WINDOW, MAIN LOBBY AREA (OUTSIDE).	N			JAW	100% NON-FIBROUS MATTER
51	51	WHITE SINK UNDERCOATING INSULATION, MAIN LOBBY HALLWAY, KITCHENETTE AREA.	Y	CHRYSOTILE	5%	SDD	95% NON-FIBROUS MATTER
53	53	WHITE DRYWALL, MAIN LOBBY CLOSET, SW CORNER, LAYER 1 OF 2.	N			SDD	96% NON-FIBROUS MATTER 4% CELLULOSE
53	53	BROWN MATERIAL ON WHITE DRYWALL, MAIN LOBBY CLOSET, SW CORNER, LAYER 2 OF 2.	N			SDD	97% CELLULOSE 3% NON-FIBROUS MATTER

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**PROJECT:** EAGLE PICHER FACILITY, 221 INDUSTRIAL DRIVE, HILLSDALE, MI
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FIBERTEC SAMPLE NO.	CLIENT I.D. NO.	DESCRIPTION/ LOCATION	*ASBESTOS PRESENT Y/N	ASBESTOS TYPE	PERCENT ASBESTOS	TECH. INIT.	NON-ASBESTOS- CONTAINING PORTION
54	54	WHITE DRYWALL JOINT COMPOUND, MAIN LOBBY CLOSET, SW CORNER.	N N	TYPE	ASBESTOS	JAW	92% NON-FIBROUS MATTER 8% CELLULOSE

COMMENT	S:						
DATE:				APPROVE	D SIGNATO	ORY	

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#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Main plant area	White wall paint	Undamaged	Pb-3	Y (Lead)			
Main plant area	Light gray wall paint	Undamaged	Pb-1	Y (Lead)			
Main plant area	Yellow floor paint	Undamaged	Pb-5	Y (Lead)			
Main plant area	Red column paint (fire extinguisher)	Undamaged	Pb-6	Y (Lead)			
Main plant area	Orange electrical panel paint	Undamaged	Pb-7	Y (Lead)			

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
– Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office south of Quality Inspection Room	4" brown cove molding and associated mastic	Undamaged	45	N	2 x 10' x .4" 2 x 12' x 4"	18	s.f.
Office south of Quality Inspection Room	Dark gray floor paint	Undamaged	Pb-2	Y (Lead)	10' x 12'	120	s.f.
Office south of Quality Inspection Room	White paint on wood panel walls	Undamaged	Pb-3	Y (Lead)			

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
– Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW dump, garage area	White wall paint	Undamaged	Pb-3	Y (Lead)			
SW dump, garage area	Light gray wall paint	Undamaged	Pb-1	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18899-1	Date _	3/10/2004
	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Environmental Safety Office NW corner of plant area	Drywall	Undamaged	3	N	22 x 10' x 8' 2 x 12' x 8'	352	s.f.
Environmental Safety Office NW corner of plant area	Drywall joint compound	Undamaged	5	N	352' x 50%	176	s.f.
Environmental Safety Office NW corner of plant area	Cream-colored vinyl wall covering with marble pattern	Undamaged	23	N	2 x 12' x 6' 1 x 12' x 6'	216	s.f.
Environmental Safety Office NW corner of plant area	Cork board wall	Undamaged	35	N	1 x 8' x 6'	48	s.f.
Environmental Safety Office NW corner of plant area	4" brown cove molding and associated mastic	Undamaged	45	N	2 x 10' x .4 2 x 8' x .4	14	s.f.
Environmental Safety Office NW corner of plant area	Dark gray floor paint	Undamaged	Pb-2	Y (Lead)			

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date _	3/10/2004
	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Locker room, change area	White wall paint	Undamaged	Pb-3 (Lead)	Y			
Locker room, change area	Light gray wall paint	Undamaged	Pb-1 (Lead)	Y			
Locker room, change area	Dark gray floor paint	Undamaged	Pb-2 (Lead)	Y			

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date _	3/10/2004
	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Main entryway storage room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	6' x 12'	72	s.f.
Main entryway storage room	Drywall	Undamaged	3	N	2 x 6' x 8' 2 x 12' x 8'	336	s.f.
Main entryway storage room	Drywall joint compound	Undamaged	5	N	336' x 50%	168	s.f.
Main entryway storage room	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	2' x 6' 2' x 12'	36	s.f.
Main entryway storage room	Rust-colored linoleum and associated mastic	Undamaged	9	N	6' x 12'	72	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
- Buildina	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main
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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Main lobby area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 16'	192	s.f.
Main lobby area	Cream-colored vinyl wall covering with large flowers	Undamaged	13	N	6' x 12' 6' x 16'	168	s.f.
Main lobby area	Brown & green vinyl wall boarder with large leaf pattern	Undamaged	8	N	1' x 12' 1' x 16'	28	s.f.
Main lobby area	Dark gray linoleum with white specks and associated mastic	Undamaged	11	N	12' x 16'	192	s.f.
Main lobby area	Drywall	Undamaged	3	N	12' x 16'	195	s.f.
Main lobby area	Drywall joint compound	Undamaged	5	N	192' x 50%	96	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Fools Disher Fooility 224 Industrial Drive	- Floor	Main
Dullulliy	Eagle Picher Facility, 221 Industrial Drive	FIUUI	iviain

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Men's restroom Office area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	6' x 6'	36	s.f.
Men's restroom Office area	Drywall	Undamaged	3	N	4 x 6' x 8'	192	s.f.
Men's restroom Office area	Drywall joint compound	Undamaged	5	N	192 x 50%	96	s.f.
Men's restroom Office area	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	4 x 6' x 8'	192	s.f.
Men's restroom Office area	Cream-colored vinyl wall covering with marble pattern	Undamaged	23	N	4 x 6' x 8'	192	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Fools Disher Fooility 224 Industrial Drive	- Floor	Main
Dullulliy	Eagle Picher Facility, 221 Industrial Drive	FIUUI	iviain

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Women's restroom, north side of hallway off main lobby	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	6' x 6'	36	s.f.
Women's restroom, north side of hallway off main lobby	Drywall	Undamaged	3	N	4 x 6' x 8'	182	s.f.
Women's restroom, north side of hallway off main lobby	Drywall joint compound	Undamaged	5	N	192' x 50%	96	s.f.
Women's restroom, north side of hallway off main lobby	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	4 x 6' x 8'	192	s.f.
Women's restroom, north side of hallway off main lobby	Multicolored pastel vinyl wall covering	Undamaged	21	N	4 x 6' x 8'	192	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #	18899-1	Date _	3/10/2004
	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
E/W hallway off main lobby	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	3' x 40' 5' x 12' 4' x 8'	212	s.f.
E/W hallway off main lobby	Drywall	Undamaged	3	N	2 x 3' x 8' 2 x 5' x 8' 2 x 8' x 8' 2 x 9' x 8' 2 x 12' x 8' 2 x 40' x 8'	1152	s.f.
E/W hallway off main lobby	Drywall joint compound	Undamaged	5	N	1152' x 50%	576	s.f.
E/W hallway off main lobby	Cream-colored vinyl wall covering with large flowers	Undamaged	13	N	5' x 4' x 2 5' x 8' x 2 5' x 3' x 2 5' x 5' x 2 5' x 40' x 2 5' x 12' x 2	720	s.f.
E/W hallway off main lobby	Brown & green vinyl wall border with leaf pattern	Undamaged	15	N	2 x 40' x 1 2 x 12' x 1	104	s.f.
E/W hallway off main lobby	Blue vinyl wall covering	Undamaged	17	N	2 x 40' x 3' 2 x 12' x 3'	312	s.f.
E/W hallway off main lobby	Cream-colored linoleum and associated mastic	Undamaged	19	N	3' x 40' 5' x 12' 4' x 8'	212	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
E/W hallway off main lobby	Fire door & frame (Steelcase)	Undamaged	Unsampled	N		1	ct.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Fools Disher Fooility 224 Industrial Drive	- Floor	Main
Dullulliy	Eagle Picher Facility, 221 Industrial Drive	FIUUI	iviain

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
1st office west of Conference room in main hallway	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 16'	192	s.f.
1st office west of Conference room in main hallway	Drywall	Undamaged	3	N	2 x 12' x 8' 2 x 16' x 8'	448	s.f.
1st office west of Conference room in main hallway	Drywall joint compound	Undamaged	4	N	448 x 50%	224	s.f.
1st office west of Conference room in main hallway	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	2 x 12' x 6' 2 x 12' x 6'	448	s.f.
1st office west of Conference room in main hallway	Cream-colored vinyl wall covering with marble pattern	Undamaged	23	N	2 x 12' x 6' 2 x 12' x 6'	448	s.f.
1st office west of Conference room in main hallway	Cream-colored linoleum	Undamaged	19	N	12' x 16'	192	s.f.

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Project #_	18899-1	Date	3/10/2004
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Dullulliy	Eagle Picher Facility, 221 Industrial Drive	FIUUI	iviain

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office south of Conference room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 12'	144	s.f.
Office south of Conference room	Drywall	Undamaged	3	N	4 x 12' x 8'	384	s.f.
Office south of Conference room	Drywall joint compound	Undamaged	5	N	384 x 50%	192	s.f.
Office south of Conference room	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	4 x 12' x 6'	288	s.f.
Office south of Conference room	Cream-colored vinyl wall covering with marble pattern	Undamaged	23	N	4 x 12' x 6'	288	s.f.
Office south of Conference room	Cream-colored linoleum	Undamaged	19	N	12' x 12'	144	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date _	3/10/2004
 Building	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
N/S hallway (Coffee Counter)	White sink undercoating	Undamaged	51	Y		1	ct.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #_	18899-1	Date	3/10/2004
 Building	Fools Disher Fooility 224 Industrial Drive	- Floor	Main
Dullulliy	Eagle Picher Facility, 221 Industrial Drive	FIUUI	iviain

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Closet south side main hallway	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	2' x 8'	16	s.f.
Closet south side main hallway	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N	1 x 8' x 8' 2 x 2' x 8'	96	s.f.
Closet south side main hallway	Drywall	Undamaged	3	N	1 x 8' x 8' 2 x 2' x 8'	96	s.f.
Closet south side main hallway	Drywall joint compound	Undamaged	5	N	96' x 50%	48	s.f.
Closet south side main hallway	Green linoleum with brown squares	Undamaged	27	N	2' x 8'	16	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

Project #18899-1		Date _	3/10/2004
	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office hallway south of main hallway leading to plant	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	8' x 22'	176	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Coordinator's office off south hallway leading to plant	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 22'	220	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE room off south hallway entering plant area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 12'	120	s.f.
SE room off south hallway entering plant area	4" black cove molding and associated mastic	Undamaged	37	N	2 x 10' x .4" 2 x 12' x .4"	18	s.f.
SE room off south hallway entering plant area	Green & black linoleum with marble pattern	Undamaged	25	N	10' x 12'	120	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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– Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
NE room off south hallway entering plant area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 22'	226	s.f.
NE room off south hallway entering plant area	4" black cove molding and associated mastic	Undamaged	37	N	2 x 10' x .4" 2 x 12' x .4"	26	s.f.
NE room off south hallway entering plant area	Green & black linoleum with marble pattern	Undamaged	25	N	10' x 22'	226	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Human Resources telecom room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	7' x 8'	56	s.f.
Human Resources telecom room	Drywall	Undamaged	3	N	7' x 8' x 2	112	s.f.
Human Resources telecom room	Drywall joint compound	Undamaged	5	N	112' x 50%	56	s.f.
Human Resources telecom room	4" black cove molding and associated mastic	Undamaged	37	N	2 x 7' x .4" 2 x 8' x .4"	12	s.f.
Human Resources telecom room	Green & black linoleum with marble pattern	Undamaged	25	N	7' x 8'	56	s.f.

#### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Machine room, NE plant area over nonconforming material area	White paint on walls	Undamaged	Pb-3	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Tool crib office, east center wall, plant area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 12'	144	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Shipping & Receiving north office	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 16'	192	s.f.
Shipping & Receiving north office	4" black cove molding and associated mastic	Undamaged	37	N	2 x 12' x .4" 2 x 16' x .4"	23	s.f.
Shipping & Receiving north office	Brown linoleum with black specks	Undamaged	41	N	12' x 16'	192	s.f.
Shipping & Receiving north office	White wall paint	Undamaged	Pb-3	Y (Lead)			

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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– Building	Eagle Picher Facility, 221 Industrial Drive	Floor	Main

Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Plant washroom	No suspect ACM observed						

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lunch room storage room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	5' x 10'	50	s.f.
Lunch room storage room	White wall paint	Undamaged	Pb-3	Y (Lead)			
Lunch room storage room	Light gray wall paint	Undamaged	Pb-1	Y (Lead)			
Lunch room storage room	Dark gray floor paint	Undamaged	Pb-2	Y (Lead)			

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office east of women's restroom, main office area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 12'	120	s.f.
Office east of women's restroom, main office area	Drywall	Undamaged	3	N	2 x 10' x 6' 2 x 12' x 6'	264	s.f.
Office east of women's restroom, main office area	Drywall joint compound	Undamaged	5	N	132' x 50%	132	s.f.
Office east of women's restroom, main office area	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N		264	s.f.
Office east of women's restroom, main office area	Cream-colored linoleum	Undamaged	19	N	10' x 12'	120	s.f.
Office east of women's restroom, main office area	Cream-colored linoleum covering with marble pattern	Undamaged	23	N		264	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lobby reception area office	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	13' x 20'	260	s.f.
Lobby reception area office	Drywall	Undamaged	3	N	2 x 13' x 8' 2 x 20' x 8'	368	s.f.
Lobby reception area office	Drywall joint compound	Undamaged	5	N	368' x 50%	184	s.f.
Lobby reception area office	Multicolored pastel vinyl wall covering	Undamaged	21	N		368	s.f.
Lobby reception area office	Cream-colored linoleum covering with burlap pattern	Undamaged	7	N		368	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office east of south hall leading to plant area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 12'	120	s.f.
Office east of south hall leading to plant area	Drywall	Undamaged	3	N	2 x 10' x 6' 2 x 12' x 6'	264	s.f.
Office east of south hall leading to plant area	Drywall joint compound	Undamaged	5	N	264' x 50%	132	s.f.
Office east of south hall leading to plant area	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N			s.f.
Office east of south hall leading to plant area	Cream-colored vinyl wall covering with cream pattern	Undamaged	23	N			s.f.
Office east of south hall leading to plant area	Cream-colored linoleum	Undamaged	19	N	10' x 12'	120	s.f.

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Office east of south hall leading to plant area	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	3' x 6'	18	s.f.
Office east of south hall leading to plant area	Drywall	Undamaged	3	N	2 x 3' x 8' 2 x 6' x 8'	144	s.f.
Office east of south hall leading to plant area	Drywall joint compound	Undamaged	5	N	144' x 50%	72	s.f.
Office east of south hall leading to plant area	Cream-colored vinyl wall covering with burlap pattern	Undamaged	7	N		144	s.f.
Office east of south hall leading to plant area	Multicolored vinyl wall covering with vertical streaks	Undamaged	31	N		144	s.f.
Office east of south hall leading to plant area	Rust-colored linoleum	Undamaged	9	N	3' x 6'	18	s.f.
Office east of south hall leading to plant area	Fire door and frame	Undamaged	Unsampled	Assumed		1	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SE corner office area (Engineering)	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	14' X 22'	308	s.f.
SE corner office area (Engineering)	Green & black linoleum with marble pattern	Undamaged	25	N	14' X 22'	308	s.f.
SE corner office area (Engineering)	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			s.f.
SE corner office area (Engineering)	Gray cinderblock paint	Undamaged	Pb-1	Y (Lead)			s.f.

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Human Resources	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	10' x 16'	160	s.f.
Human Resources	Drywall	Undamaged	3	N	6' x 8' 12' x 8' 8' x 8'	144	s.f.
Human Resources	Drywall joint compound	Undamaged	5	N	144' x 50%	72	s.f.
Human Resources	Green & black linoleum with marble pattern	Undamaged	23	N	10' x 16'	160	s.f.
Human Resources	4" black cove molding and associated mastic	Undamaged	37	N	2 x 16' x .4" 2 x 10' x .4"	21	s.f.
Human Resources	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			s.f.
Human Resources	Gray cinderblock paint	Undamaged	Pb-1	Y (Lead)			s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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- Buildina	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main
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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Conference Room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 16'	192	s.f.
Conference Room	Drywall	Undamaged	3	N	2 x 12' x 6' 2 x 12' x 16'	528	s.f.
Conference Room	Drywall joint compound	Undamaged	5	N	528' x 50%	264	s.f.
Conference Room	Cream-colored vinyl wall covering with marble pattern	Undamaged	7	N	6' x 12' 16' x 6'	168	s.f.
Conference Room	Green vinyl wall covering	Undamaged	33	N	6' x 12'	72	s.f.
Conference Room	Cork board and associated mastic	Undamaged	35	N	6' x 12'	72	s.f.
Conference Room	Cream-colored linoleum	Undamaged	19	N	12' x 16'	192	s.f.

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
R.J.D. Training Room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	17' x 22'	374	s.f.
R.J.D. Training Room	Drywall	Undamaged	3	N	8' x 22'	176	s.f.
R.J.D. Training Room	Drywall joint compound	Undamaged	5	N	176' x 50%	88	s.f.
R.J.D. Training Room	Green & black linoleum with marble pattern	Undamaged	25	N	17' x 22'	374	s.f.
R.J.D. Training Room	4" black cove molding and associated mastic	Undamaged	37	N	2 x 17' x .4" 2 x 22' x .4"	32	s.f.
R.J.D. Training Room	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			
R.J.D. Training Room	Gray cinderblock paint	Undamaged	Pb-1	Y (Lead)		_	_

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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— Buildina	Eagle Picher Facility, 221 Industrial Drive	- Floor	Main
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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Shipping & Receiving south office	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 14'	168	s.f.
Shipping & Receiving south office	Brown linoleum with black specks	Undamaged	41	N	12' x 14'	168	s.f.
Shipping & Receiving south office	4" black cove molding and associated mastic	Undamaged	37	N	2 x 12' x .4" 2 x 14' x .4"	21	s.f.
Shipping & Receiving south office	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			
Shipping & Receiving south office	Blue cinderblock paint	Undamaged	Pb-4	Y (Lead)			

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Stage Deck Office "White Castle"	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 12'	144	s.f.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Lunch room	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	24' x 52'	1248	s.f.
Lunch room	4" black cove molding and associated mastic	Undamaged	37	N	2 x 24' x .4" 2 x 52' x .4"	61	s.f.
Lunch room	Dark gray floor paint	Undamaged	Pb-2	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
First Aid Office	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	8' x 10'	80	s.f.
First Aid Office	12" x 12" brown floor tile with cream-colored streaks and associated mastic	Undamaged	43	N	8' x 10'	80	s.f.
First Aid Office	4" brown cove molding and associated mastic	Undamaged	45	N	2 x 8' x .4" 2 x 6' x .4"	14	s.f
First Aid Office	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			
First Aid Office	Gray cinderblock paint	Undamaged	Pb-1	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality office, NE area of plant	Drywall	Undamaged	3	N	10'x 12'	120	s.f.
Quality office, NE area of plant	Drywall joint compound	Undamaged	5	N	2 x 10' x 6' 2 x 12' x 6'	264	s.f.
Quality office, NE area of plant	4" black cove molding and associated mastic	Undamaged	37	N	2 x 10' x .4" 2 x 12' x .4"	18	s.f
Quality office, NE area of plant	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			
Quality office, NE area of plant	Gray cinderblock paint	Undamaged	Pb-1	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Quality office, NE area of plant	4" black cove molding and associated mastic	Undamaged	37	N	2 x 38' x .4" 2 x 12' x .4"	40	s.f
Quality office, NE area of plant	White wall paint	Undamaged	Pb-3	Y (Lead)			
Quality office, NE area of plant	Dark gray floor paint	Undamaged	Pb-2	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Main plant, main factory area	White window glaze	Undamaged	39	N	2' x 2' each 2' x 3' windows per set	15	ct.

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
SW corner, dock area	No suspect ACM observed						

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Roof, outside area	Rubber roof/tar	Undamaged	47	N	Per Print	92,000	s.f
Outside area	Black door and window caulk	Undamaged	49	N		155	l.f.
Outside area	Brown pain on cinderblock	Undamaged	Pb-8	Y (Lead)			

### ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Maintenance/Electrical office SE corner of plant	2' x 4' white lay-in ceiling tile with pin holes & fissures	Undamaged	1	N	12' x 24'	288	s.f.

## ROOM BY ROOM ASBESTOS AND LEAD BUILDING INSPECTION FORM

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Room #/Area Description	Material Description	Condition	Sample Reference #'s	Asbestos and Lead Containing (Y) Yes (N) No	Dimensions	Quantity	Unit
Air Dryer/Fan room	White cinderblock paint	Undamaged	Pb-3	Y (Lead)			



Photo 1 – Front of building, facing south

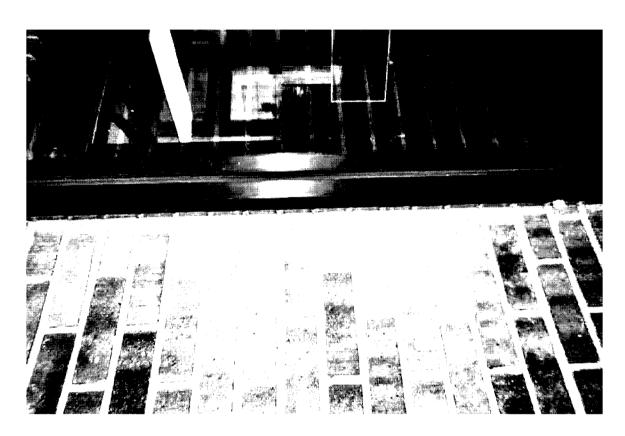


Photo 2 – Window caulk, west front entrance

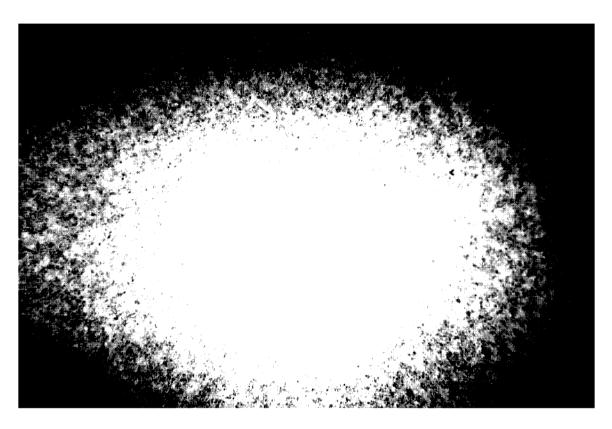


Photo 3 – Cream linoleum, main hallway



Photo 4 – Drywall and drywall joint compound, lobby, storage closet

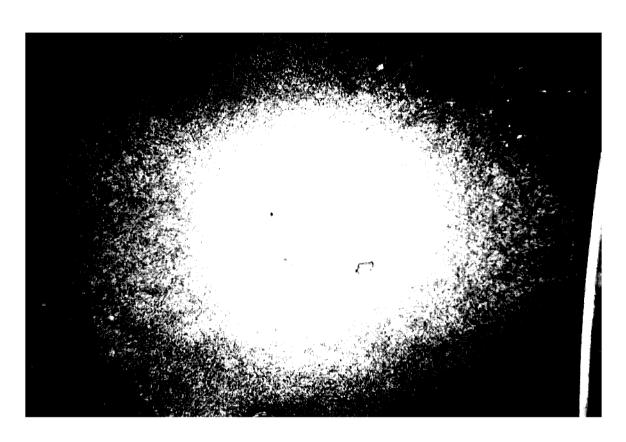


Photo 5 – Rust linoleum, lobby, storage closet

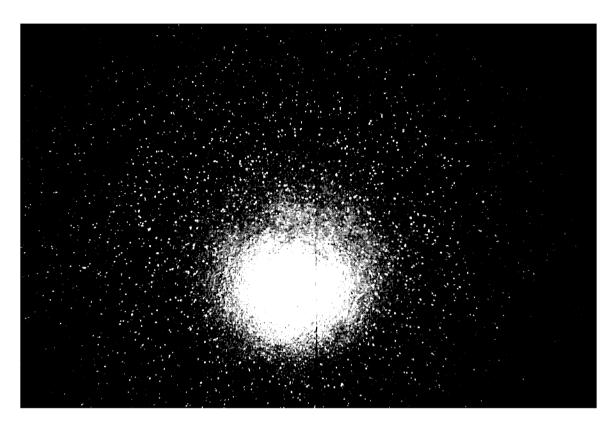


Photo 6 – Gray linoleum with white specks, main lobby



Photo 7 – Cream vinyl wall covering with large flowers, main lobby

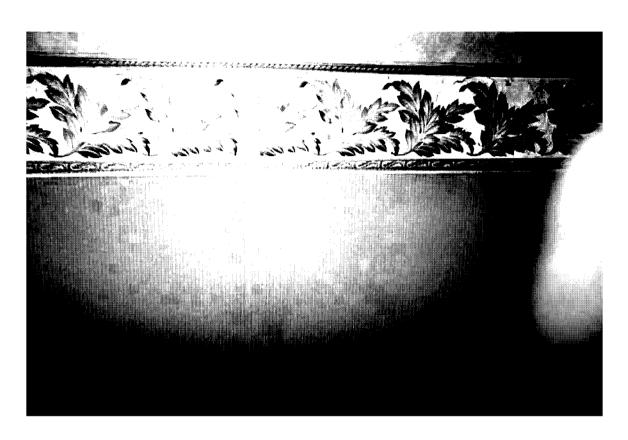


Photo 8 – Blue vinyl wall covering with green/brown large leaf border, main hallway



Photo 9 – Multi-colored pastel vinyl wall covering, reception area

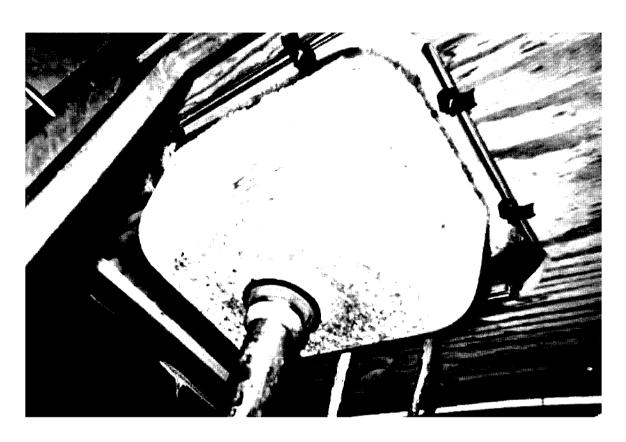


Photo 10 – White sink undercoating, main hallway



Photo 11 – Cream marble wall covering, conference room

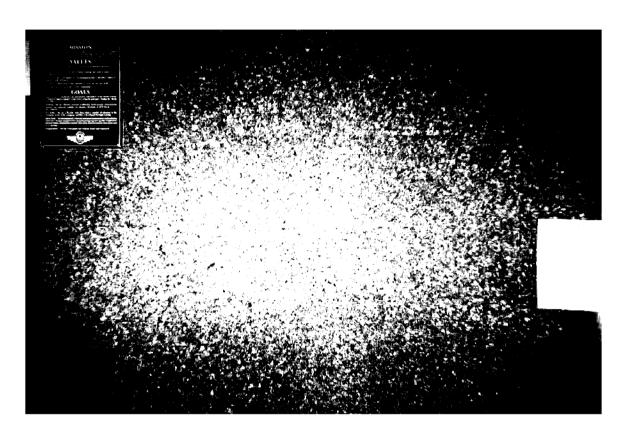


Photo 12 – Cork board, conference room



Photo 13 – Green linoleum with brown squares, closet, main hallway

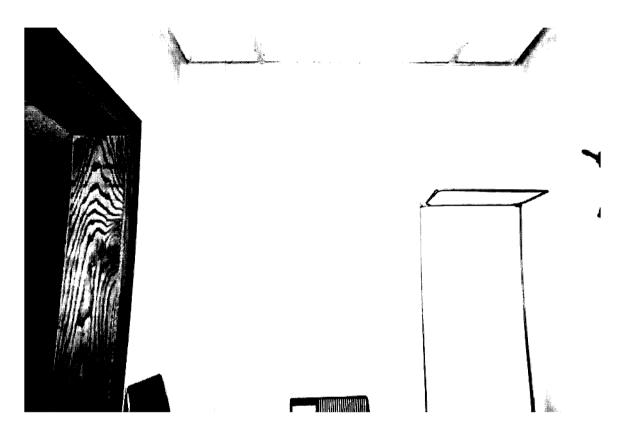


Photo 14 – Multi-colored vertical streaks wall covering, east window wall, reception area



Photo 15 – Burlap vinyl wall covering, east

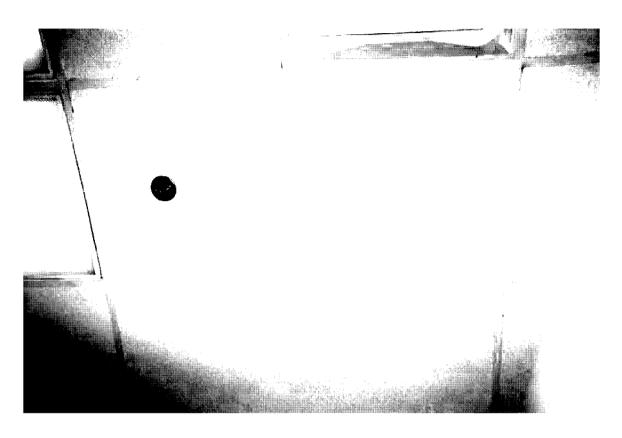


Photo 16 - 2' x 4', white ceiling tile, hallway leading to plant

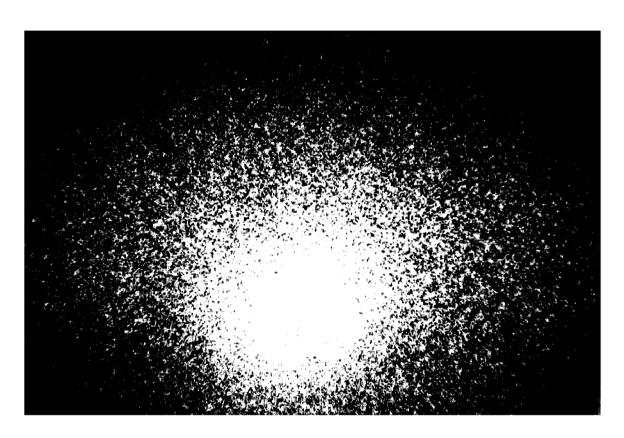


Photo 17 – Green and black marble linoleum, NE room, three room lobby, entering plant

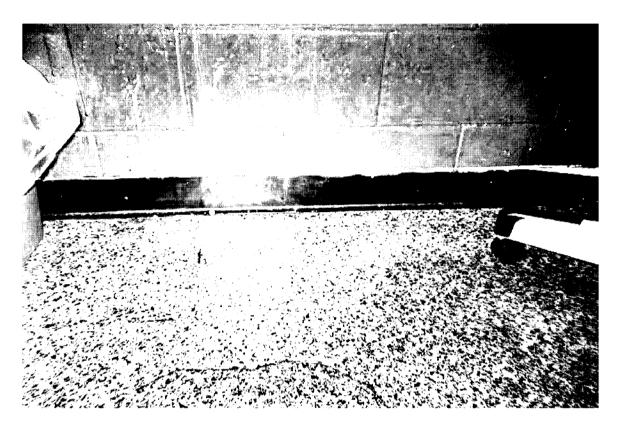


Photo 18 – Black cove molding, NE room, three room lobby, entering plant

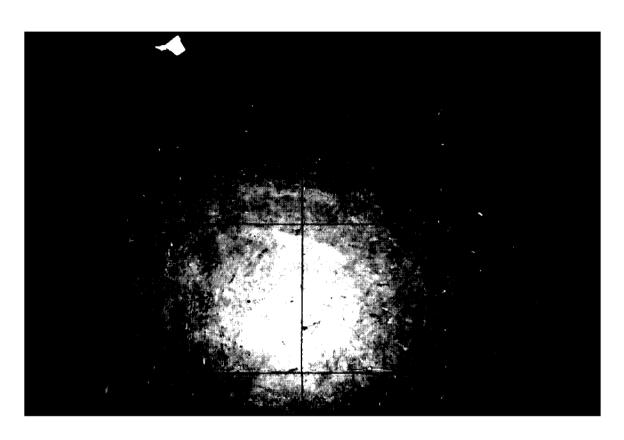


Photo 19 – 12" x 12" floor tile, First Aid Room

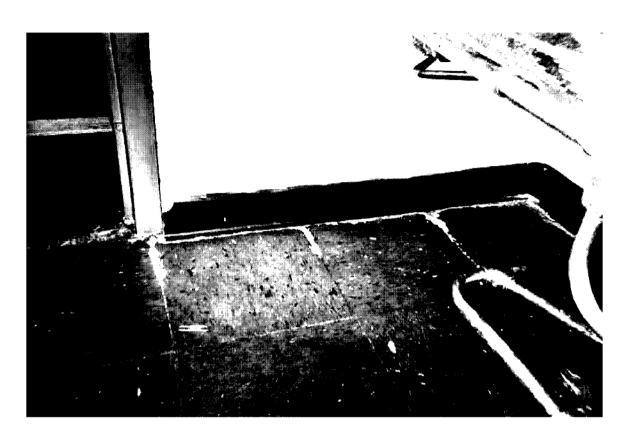


Photo 20 – Brown cove molding, First Aid Room

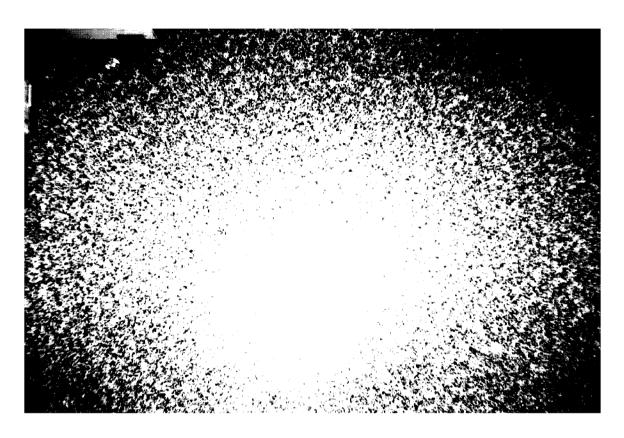


Photo 21 – Brown and black speckled linoleum, north shipping room



Photo 22 – Window glazing compound, east wall, plant area

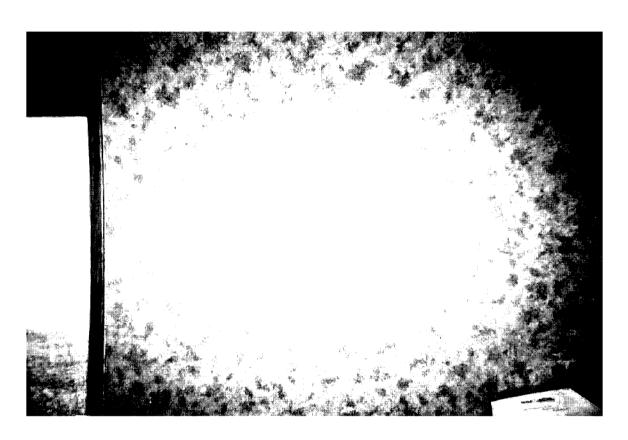


Photo 23 – Green vinyl wall covering, conference room



Photo 24 – Roof rubber/tar, facing northeast

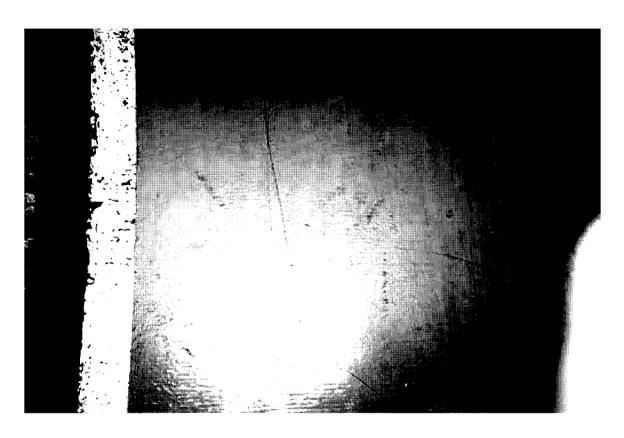


Photo 25 – Yellow paint, NE corner, walkway

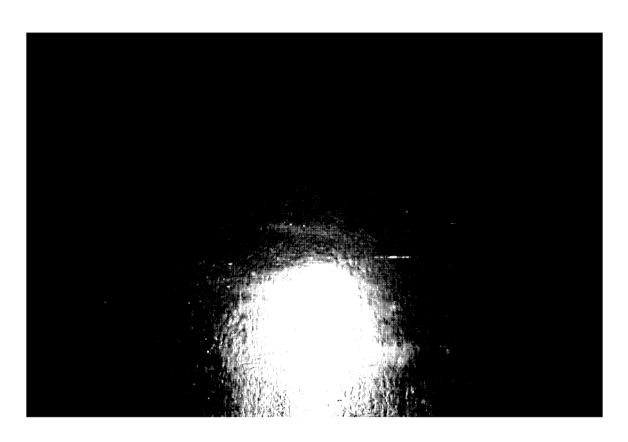


Photo 26 – Blue paint, NE corner, truck path



Photo 27 – White paint, north wall

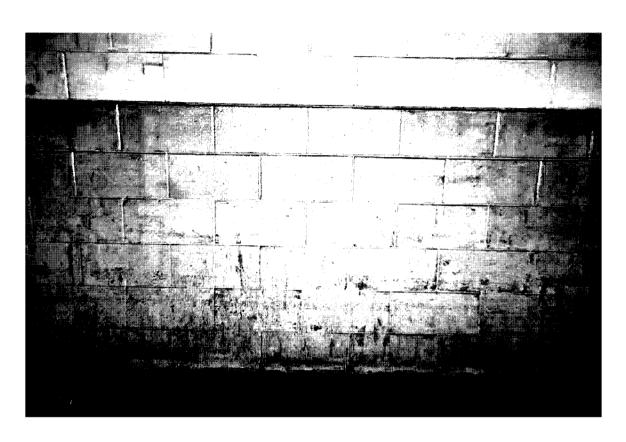


Photo 28 – Light gray paint, north wall

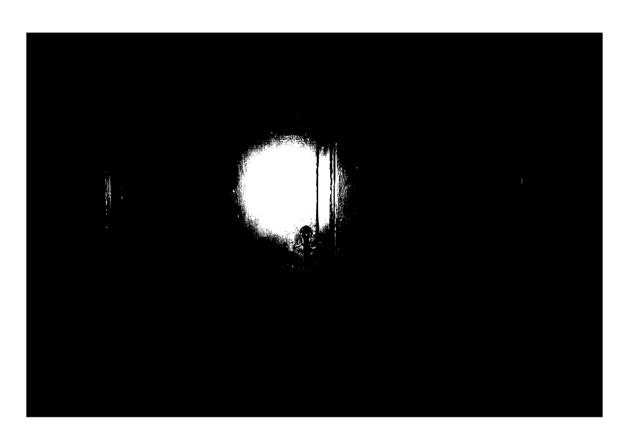


Photo 29 – Orange paint, power panel box, SE corner



Photo 30 – Red paint, support beam, SE corner



Photo 31 – Dark gray paint, office doors



Photo 32 – Fire door and frame, east window reception area, storage room



March 31, 2004

Fibertec Project # 76853

Project Identification: Eagle Picher 221 Ind. Dr. Hillsdale/ 18899

Ms. Dawn Sharvin Arcadis 25200 Telegraph Road Southfield, MI 48034

Dear Ms. Sharvin:

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples collected at the above referenced project site have been analyzed as requested and the results compiled in the enclosed report. Please note samples will be disposed of 30 days after reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Telephone: (517) 699-0345

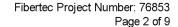
Telephone: (248) 446-5700

Sincerely,

Daryl P. Strandbergh Laboratory Director

DPS/kc

**Enclosures** 





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 001

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: SE ROOM CENTRAL HALLWAY

HILLSDALE

LEADING TO PLANT GRAY (LIGHT ON WALLS)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 01

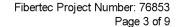
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.13	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	ЛLН





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 002

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR.

HILLSDALE

CLIENT SAMPLE DESCRIPTION:

DOOR OF SE ROOM CENTRAL HALLWAY LEADING TO PLANT

DARK GRAY (DOORS)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 02

3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

COMMENTS:

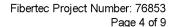
SAMPLE DATE:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT, RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.00040	%WT	0.00026	6020	28336	3/16/2004	3/17/2004	ЛLН

Telephone: (517) 699-0345 Telephone: (248) 446-5700 Facsimile: (517) 699-0388





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 003

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: SE ROOM CENTRAL HALLWAY

HILLSDALE

LEADING TO PLANT (WHITE WALL)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 03

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

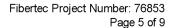
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.049	%WT	0.00019	6020	28336	3/16/2004	3/17/2004	JLH

Telephone: (517) 699-0345 Telephone: (248) 446-5700 Facsimile: (517) 699-0388





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 004

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: SW CORNER CENTRAL HALLWAY

HILLSDALE

LEADING TO PLANT BLUE
(FLOOR)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 04

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

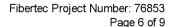
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ватсн	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.015	%WT	0.00018	6020	28336	3/16/2004	3/17/2004	ЛLН

Facsimile: (517) 699-0388





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 005

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: NE CORNER EAST WALKWAY TO

HILLSDALE PLANT YELLOW (FLOOR)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 05

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

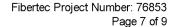
COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.00040	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	JLH

Facsimile: (517) 699-0388





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 006

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: SE SUPPORT BEAM SE CORNER

HILLSDALE

OF PLANT RED (SPRINKLER, FIRE EXT.)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 06

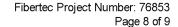
SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.015	%WT	0.00020	6020	28336	3/16/2004	3/17/2004	ЛLН





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: **PAINT** 

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 007

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: ABANDON POWER PANEL SE HILLSDALE CORNER OF PLANT ORANGE

(MACHINE PANEL SUPPLY

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 07

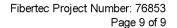
CHAIN OF CUSTODY NUMBER: 42701B SAMPLE DATE: 3/12/2004

COMMENTS:

**DEFINITIONS:**  $\mathbf{ND}$  = NOT DETECTED AT OR ABOVE REPORTING LIMIT;  $\mathbf{RL}$  = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.0038	%WT	0.00019	6020	28336	3/16/2004	3/17/2004	ЛLН





CLIENT IDENTIFICATION: ARCADIS SAMPLE MATRIX: PAINT

FIBERTEC PROJECT NO: 76853 FIBERTEC SAMPLE NUMBER: 008

**CLIENT SAMPLE INFORMATION** 

PROJECT IDENTIFICATION: EAGLE PICHER 221 IND. DR. CLIENT SAMPLE DESCRIPTION: SOUTH WALL OUTSIDE BLDG.

HILLSDALE BROWN (OUTSIDE WALL)

PROJECT NUMBER: 18899 CLIENT SAMPLE NUMBER: 08

SAMPLE DATE: 3/12/2004 CHAIN OF CUSTODY NUMBER: 42701B

COMMENTS:

DEFINITIONS: ND = NOT DETECTED AT OR ABOVE REPORTING LIMIT; RL = REPORTING LIMIT

N/A = NOT AVAILABLE OR NOT APPLICABLE

ANALYTE	RESULT	UNITS	RL	METHOD	ВАТСН	EXTRACTION DATE	ANALYSIS DATE	TECH. INIT.
LEAD	0.00070	%WT	0.00019	6020	28336	3/16/2004	3/17/2004	ЛLН

Telephone: (517) 699-0345 Facsimile: (517) 699-0388 Telephone: (248) 446-5700 Facsimile: (248) 446-5701

Appendix F

**ARCADIS** Resumes

#### Dawn L. Sharvin

Staff Scientist

Ms. Sharvin has more than seven years of experience in the environmental consulting industry working with a variety of industrial, commercial, and regulatory clients. She is currently focused on managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; and negotiating with regulatory agencies. Ms. Sharvin has extensive experience managing and working to solve complex environmental site assessment, remediation, and due diligence problems, and has a proven record of satisfying clients on complicated projects with challenging budget and scheduling constraints.

## **Database Management**

Serves as Data Manager for several large investigation and remediation projects. Responsibilities include database creation, maintenance, and management of all analytical and field data. Ms. Sharvin creates, writes, and modifies macros, queries, and databases that automate and simplify the comparison of analytical data to state and federal regulatory standards.

# Site Assessment and Remedial Investigations

Ms. Sharvin has managed numerous projects involved with the assessment and remediation of soil and groundwater impacted by various constituents of concern. She has successfully conceived, designed, and implemented investigations and remedial programs at former manufactured gas plant (MGP) sites, landfills, service stations, petroleum terminals, refineries, industrial facilities, and government facilities. Environmental impacts are assessed using a variety of surface and subsurface techniques, including installation of soil borings and

groundwater monitoring wells, soil and groundwater sampling, plume assessment and delineation, determination of aquifer characteristics, and preparation of assessment and remedial investigation reports. Ms. Sharvin has extensive experience in field procedures and data collection programs, including a working knowledge of all types of drilling techniques, field test kits, monitoring well design, aquifer testing, site safety, and groundwater monitoring procedures.

Ms. Sharvin has also conducted numerous site assessment activities, including Phase I and Phase II environmental site assessments (ESAs) (in accordance with *American Society for Testing and Materials* [ASTM] and other state and federal guidance), as well as baseline environmental assessments (BEAs) for residential, commercial, and industrial properties.

#### Railroads

Ms. Sharvin has worked with a variety of railroad clients, including CSX Transportation, Conrail, Long Island Railroad (LIRR), and Metro North

#### Education

M.S./ Environmental Science, Long Island University. 2001.

B.S./ Biology, Lehigh University, 1997.

#### **Professional Certifications**

Hazardous Waste Site Training, OSHA 40-hour Certification

8-hour Refresher Course for Waste Site Personnel

Federal Railroad Association Training

Staff Scientist

Railroad, at a variety of former and active railroad sites across the Midwest and northeast United States. Her railroad experience includes environmental due diligence; site assessments; remedial investigations; feasibility studies; track expansion; remedial designs and remedial actions for roundhouses, tank farms, hump yards, maintenance and repair facilities, sidings, and main lines. Many of these projects have allowed for the redevelopment of abandoned or idle railroad property.

### **Petroleum Sites**

Worked on a variety of petroleum sites for clients that range from national and multinational firms (i.e., Chevron, and Gulf) to regional (Marathon, Speedway SuperAmerica) and local distributors. Served as Project Manager and field scientist for dozens of leaking underground storage tanks (LUSTs) and aboveground storage tank (AST) projects. Supervised the removal and/or closure of more than 50 USTs and ASTs for bulk petroleum storage and transfer plants, retail distribution centers, fleet maintenance centers, and manufacturing facilities. Designed and implemented UST/AST closures and compliance upgrades, soil and groundwater remedial systems, and LUST emergency response actions for more than 50 sites across the United States. Responsible for preparing budgets, work plans, technical reports, and LUST fund reimbursement claims.

## **Construction Oversight**

Provided construction oversight on several environmentally sensitive projects. Conducted air monitoring at numerous sites during the excavation of potentially impacted soils. Provided construction oversight of filling, contouring, and construction activities associated with the conversion of a former municipal landfill into a professional golf course.

Responsible for documenting remedial activities using photographs, slides, field sketches, and logbook notes. Served as field contact for communicating information between subcontractors and the client and was also responsible for making on-the-spot changes in the field.

## **Additional Training**

- United States Environmental Protection Agency (EPA), Region 5, SPCC New Rule Seminar, November 2002
- National Groundwater Association, Comprehensive Groundwater Management Using Microsoft Access, October 1999
- GIS/Solutions, Inc., GIS/Key Basic Training, February 1999
- ESRI, Learning Geographic Information System (GIS) (for ArcView and ArcInfo), October 1998

Mr. Quinnan has more than 14 years professional experience in environmental consulting. Mr. Quinnan has extensive experience in hydrogeology, in-situ remediation, and numerical modeling. He has supervised the design and implementation of over 100 in-situ treatment systems ranging from groundwater pump and treat to enhanced bioremediation for chemicals, including petroleum, solvents, pesticides, and metals. He serves as a company-wide resource in hydrogeology and in-situ remediation methods. He also serves as project manager, lead technical resource in numerical modeling, and as regulatory negotiator.

During the last several years, Mr. Quinnan has directed remedial investigations and remedy selection at Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and state-lead projects through out the country. Prior to joining ARCADIS, he was actively involved in bioremediation technology development and commercialization for recalcitrant compounds including methyl tert-butyl ether (MTBE), ammonium perchlorate, and chlorinated aliphatic hydrocarbons. He has also directed technology demonstrations in CERCLA and through the Department of Defense's Environmental Security Technology Certification Program (ESTCP).

Mr. Quinnan is currently focused on developing site evaluation strategies that complement the company's innovative in-situ remediation techniques and risk capabilities and lead to exit strategies for our clients. His responsibilities include developing strategies for hydrogeologic site evaluations and in-situ remediation projects; managing and conducting remedial investigations and site evaluations; evaluating remedial options and exit strategies; supervising site remediation projects; supervising numerical modeling projects; and negotiating with regulatory agencies. Mr. Quinnan is also Site Evaluation Department Manager for the Southfield Office.

## Recent Project Experience

Project Manager and lead hydrogeologist for North Bronson Industrial Area Superfund Site – Operable Unit 1. The project involves the investigation and characterization of several lagoons where metals, petroleum hydrocarbons, chlorinated hydrocarbons, and cyanides wastes were disposed. Pre-Design Studies are currently in progress to assess the

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

Education

Postgraduate Studies, Hydrogeology, University of Illinois, Champaign, Illinois

M.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

B.S., Geological Engineering, Michigan Technological University, Houghton, Michigan

Professional
Registrations/Certifications

Certified Hydrogeologist -Wisconsin

Professional Engineer -Wisconsin

Professional Geologist -Wisconsin

OSHA 40-hour Hazardous Materials Training Course following USEPA requirements.

Professional Affiliations

American Society of Civil Engineers

National Ground Water Association

Association of Engineering Geologists

feasibility and technical design requirements associated with the ROD remedy, which involves consolidation of lagoons and hydraulic containment of the groundwater plume. Groundwater treatment is anticipated to be accomplished with an engineered treatment wetland designed to stabilize the metals and remediate the chlorinated solvents through biologically mediated reductive dechlorination.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

Lead hydrogeologist for confidential derailment site in Michigan. Project underwent approximately 10 years of pump-and-treat to address 1,1dichloroethene impacts prior to ARCADIS involvement. Completed remedial investigation using Cone Penetrometer Test (CPT) technology for stratigraphic characterization and vertical aquifer profiling. Integrated remedial investigation (RI) data using 3-dimensionsal geostatistics, groundwater flow modeling, and ecological risk assessment to evaluate application of in-situ reductive declorination and monitored natural attenuation (MNA) remedies. Pending the results of a mixing zone determination by the Michigan Department of Environmental Quality (MDEQ), it is anticipated that the final remedy will consist of engineered controls and MNA. rather than continued groundwater pump and treatment, which was estimated at over \$2 million.

Lead Hydrogeologist and project manager for confidential litigation project in Ontario, Canada. Project involves site characterization in complex fractured till setting with DNAPL and development of exit strategy to minimize remediation costs and potential liabilities.

Hydrogeological consultant in on-going litigation project in Massachusetts. Assisting confidential client in developing cost allocation and litigation strategy to limit liabilities associated with MTBE impacts to municipal well system.

Was lead hydrogeologist in technology demonstration at the City of Dover Municipal Landfill Superfund Site, New Hampshire. Project involved field-scale demonstration of sequential anaerobic-aerobic biostimulation to remediate chlorinated aromatic hydrocarbons, aromatic hydrocarbons, and dissolved arsenic.

Was lead hydrogeologist/Project Director in Department of Defense (DOD)/ESTCP technology demonstration involving in-situ biostimulation to remediate MTBE and tertiary butyl alcohol (TBA) at the Port Hueneme, California Naval Engineering Technology Test Site.

Directed Final Design Investigation at Woodlands Township Superfund Sites in New Jersey to develop prototype air sparging and soil-vapor extraction design involving over 300-air sparge wells to treat chlorinated volatiles and aromatic hydrocarbons in area covering approximately 8 acres. Project involved the application of CPT to characterize the stratigraphy in a back-bay coastal environment and development of site conceptual model, which lead to an approved Remedial Design.

Was lead hydrogeologist/numerical modeler at Picillo Farms Superfund remediation design project in Rhode Island. Remedial strategy consists of dewatering and soil vapor extraction to address source area volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) and groundwater pumping and treatment to manage migration of dissolved plume.

Was principal designer for an in-situ bioremediation program for free-phase

Joseph A. Quinnan, P.E., P.G.

Principal Engineer/Hydrogeologist -Ste Evaluation Department Manager

petroleum condensate removal at a natural gas pipeline compression facility in Eastern Colorado. The project involved the application of vapor extraction to aggressively remove the condensate followed by bioventing to address residual soil and groundwater impacts.

Was lead hydrogeologist in successful technology demonstration involving the treatment of chlorinated solvents (TCE, dichloroethene [DCE], and vinyl chloride) using injected nano-scale iron. The project was performed for a Fortune 50 Client in New Jersey.

Was principal hydrogeologist at automotive manufacturing facility RI/Feasibility Study (FS) project in Zanesville, Ohio. Developed and implemented site characterization strategy to define nature and extent of chlorinated solvents (trichloroethene [TCE] and degradation products) in complex bedrock environment.

Was principal hydrogeologist for monitored natural attenuation remedy at closed RCRA impoundment in Huntsville, Alabama. Project involved demonstration of natural attenuation of tetrachloroethene (PCE) and TCE in karst dolomite aquifer, which enabled decommissioning of groundwater pump and treat system.

Was principal hydrogeologist at former paint manufacture facility in New Jersey. Directed the operation and optimization of a multiphase extraction system (MPE) system to treat free-phase toluene in shallow till aquifer and aerobic bioremediation of dissolved aromatic hydrocarbons in underlying fractured bedrock aquifer. Enhanced bioremediation was accomplished using peroxide as a source of oxygen and a network of injection and withdrawal wells.

Conducted numerical groundwater flow simulation of fractured bedrock aquifer conducted to characterize potential for radionuclide migration at a Department of Energy (DOE) site.

Designed and implemented a groundwater pumping and soil-vapor extraction pilot test at a Wisconsin RCRA facility.

Conducted design and permitting of insitu soil and groundwater treatment system using nutrient addition and enhanced biodegradation at a former metal scrap yard in Milwaukee, Wisconsin.

Joseph A. Quinnan, P.E., P.G.

Principal
Engineer/Hydrogeologist Site Evaluation Department
Manager

## Publications/Presentations

- Steffan, R. J., C. Condee, J. Quinnan, M. Walsh, S. H. Abrams, and J. Flanders. 2000. In situ Application of Propane Sparging for MTBE Bioremediation. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, CA. In Press.
- Turpie, A.E., C. Lizotte, M. Deflaun, J. Quinnan and M. Marley. 2000. *Performance of Field-Scale Sequential Aerobic/Anaerobic In Situ Bioremediation Demonstration*. In Proceedings of the Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds. May 22-25, Monterey, Ca. In Press.
- Quinnan, J.A. Quantifying Uncertainty Associated with the Magnitude and Distribution of Drawdown in an Heterogeneous Leaky Aquifer System, Master's Thesis.
- Massmann, J.W., and J.A. Quinnan, 1989. *Three Dimensional Simulations of Groundwater Pumping Tests at the West Bear Creek Valley Site*, Oak Ridge National Laboratories in-house publication.
- Quinnan, J.A., 1988. *Preliminary Methods of Characterization and Classification of Gulf of Mexico Reservoirs*, Tenneco Eastern Gulf Division in-house publication.

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

Mr. Ferree has more than 18 years professional experience in environmental consulting. His expertise includes hydrogeologic investigations; remedial investigations; underground storage tank (UST) removal projects; soil and groundwater sampling plan preparation; soil and groundwater sampling in accordance with Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidance; surface and down-hole geophysical methods; remediation system design; remedial system installation; slug test and aquifer test performance and analysis; and environmental site assessments.

Mr. Ferree's responsibilities include developing proposals and cost estimates for hydrogeologic site investigations; managing and conducting hydrogeologic investigations at sites of known and unknown environmental contamination; evaluating remedial options; supervising site remediation projects; supervising entry-level geologists; and negotiating remedial strategies with regulatory agencies.

## Recent Project Experience

Manufacturing Facility

Mr. Ferree was the project manager for the remediation of soil and groundwater at a manufacturing facility in southeastern Michigan. He evaluated the extent of groundwater and soil contamination in a water-table aquifer and supervised the installation of a groundwater extraction and soil-vapor extraction remedial system.

#### Chemical Manufacturing

Mr. Ferree was the senior geologist/field manager for a state-sponsored remedial investigation/feasibility study (RI/FS) to analyze the extent of radiological contamination of a 35-acre site downgradient of an Ohio Department of Energy location. He supervised field sampling activities that included monitoring more than 350 wells and collecting more than 1,000 soil samples.

Automotive Parts Manufacturing

Mr. Ferree was the project manager for a state-led RI/FS to determine the extent of contamination in a fractured limestone aquifer. The project included installing 19 monitoring wells; quarterly sampling; conducting a 72-hour pumping test; and preparing a work plan, quality assurance project plan, sampling plan, and health and safety plan.

## Chemical Manufacturing

Mr. Ferree was the field manager for two federal RI/FS projects in Ohio, where he conducted all facets of groundwater, soil, sludge, surface-water, and sediment sampling with rigorous quality assurance/quality control under the scrutiny of United States Environmental Protection Agency (USEPA) Region V oversight contractors. He prepared RI reports, attended technical meetings between potentially responsible parties (PRPs)

Education

M.S., Geology, 1994 University of Cincinnati, Cincinnati, Ohio

B.S., Geology, 1984 University of Cincinnati, Cincinnati, Ohio

Professional
Registrations/Certifications

Certified Professional Geologist, American Institute of Professional Geologists, Certification No. 8370

Certified Professional Geologist, State of Indiana, Certification No. 1284

Professional Geologist, State of Kentucky, Certification No. 1575

Hazardous Waste Site Supervisor Training, OSHA 8hour certification

8-hour Refresher Course for Waste Site Personnel

Health and Safety Training for Hazardous Waste Sites, OSHA 40-hour certification

Professional Affiliations

National Ground Water Association

American Institute of Professional Geologists

Environmental Business Practice Manager

and Region V, and prepared the work plan.

Chemical Manufacturing Facility

Mr. Ferree supervised a phased subsurface investigation at a former chemical manufacturing site prior to redevelopment. He prepared work plans and RCRA Corrective Measures Implementation (CMI) Plans as part of the redevelopment plan for the site. The redevelopment plan included negotiations with State RCRA regulators to resolve RCRA Corrective Action issues prior to redevelopment. He evaluated the extent of soil and groundwater contamination for metals and volatile organic compounds (VOCs). He prepared the CMI report, CMI Work Plan, and construction specifications for the remediation of the site. Mr. Ferree supervised the installation of a barrier layer system composed of a geofabric and 9 inches of topsoil and groundwater treatment of VOCs using hydrogen peroxide. The CMI was conducted to allow the reuse of the remediated property as a school.

#### Chemical Manufacturing Facility

Mr. Ferree conducted a subsurface investigation at a manufacturing facility in Michigan. He installed monitoring wells in two aquifers to evaluate the extent of groundwater contamination, prepared a site investigation report, and designed and supervised the installation of the remedial system.

#### **Phytoremediation**

Mr. Ferree has supervised the installation of a phytocap on an abandoned casting sand landfill in southeastern Michigan. The phytocap was designed to reduce the potential for leachate production in the landfill by reducing rainfall infiltration through the landfill cap. Mr. Ferree supervised the development of the installation plan and the planting of more than 7,000 hybrid poplar trees on a 7-acre site. He has supervised the successful operation and maintenance of the phytocap for two years.

Mr. Ferree has supervised the investigation of a former casting sand landfill in Australia. He designed the investigation program to evaluate the use of Eucalyptus (species) trees as a phytocap. He evaluated precipitation data to determine the density of tree planting to minimize infiltration.

Mr. Ferree supervised and designed a phytobarrier at two railroad car axle manufacturing facilities. The phytobarrier was installed as a hydraulic control device to minimize off-site migration of VOC-impacted groundwater. The phytobarriers were composed of hybrid poplars. A deep irrigation and fertilization system was installed as part of the system. He has supervised the successful operation and maintenance of the system.

#### Manufactured Gas Plant Facilities

Mr. Ferree has managed site investigations at numerous manufactured gas plant (MGP) sites in Michigan and Ohio and evaluated the presence of contamination using health risk-based exposure pathway evaluations. He has supervised the preparation of work plans, sampling plans, and interim remedial measures plans. He has attended meetings with state

ARCADIS Robert A. Ferree, CPG

Environmental Business Practice Manager

regulators to negotiate remedial options and site closure strategies.

Plating Facility

Mr. Ferree managed the subsurface investigation and remediation activities at a USEPA Region V Superfund site composed of a plating facility in Michigan. He evaluated the extent of soil and groundwater contamination, prepared a site investigation report, and supervised the installation of the selected appropriate remedial technologies for soil and groundwater. The remedial options included installation of a sheet pile wall and asphalt cap for groundwater isolation. Impacted soil on an adjacent property was removed and disposed as hazardous waste at an off-site facility. The property will be closed with MDEQ and USEPA as an industrial property with deed restrictions.

Brass Forging/Manufacturing Facility

Mr. Ferree conducted a subsurface investigation to determine the extent of soil

and groundwater contamination associated with a leaking trichloroethylene storage tank. The investigation included drilling inside a manufacturing facility in a manner that did not disrupt manufacturing operations. Mr. Ferree evaluated options for soil and groundwater remediation.

Commercial/Industrial/Manufacturing Facilities

Mr. Ferree prepared and supervised numerous baseline environmental assessments (BEAs) at industrial/commercial properties that have been identified as sites of contamination. He has prepared Category N, D, and S baseline environmental assessments (BEAs), as required by site redevelopment plans.

Due Diligence

Mr. Ferree has been involved in the completion of due diligence projects associated with electric co-generation facilities, scrap yards, chemical facilities, and commercial properties.

#### Publications/Presentations

Ferree, R.A., R. Kertes, P. Potter, D. Petersen and K. Savage. 1988. *Comparative Petrographic Maturity of River and Beach Sand, and Origin of Quartz Arenites*. Journal of Geological Education 36:79.



人群發展。

Illinois Environmental Protection Agency P.O. Box 19276, Springfield, IL 62794-9276

217/782-6761

Refer to: LPC #0858180001 -- JoDaviess County

Galena/Inspiration Mines Superfund/Compliance

April 17, 1990

CERTIFIED # P5 (23372

Mr. David W. Matthews Eagle-Picher Industries, Inc. P.O. Box 779 Cincinnati, OH 45201

Dear Mr. Matthews:

As a potential responsible party in the matter of the above referenced site, you are hereby notified that this facility will not be included in the current revision of the Illinois State Remedial Action Priorities List (35 Ill. Adm. Code 750.440(d)). Listing of this site has been deferred at this time for the following reason(s):

Eagle-Picher Industries and Inspiration Development Corporation have agreed to perform voluntary remedial actions at the site. A Consent Order will be drafted by the Illinois Attorney General's Office.

Enclosed is a copy of the final rule. If you have any questions regarding the SRAPL or the status of this site, please contact this office.

Sincerely.

Babert Re Carron

Robert A. Carson, P.E., Manager State Site Management Unit Remedial Project Management Section Division of Land Pollution Control

RAC:REO:tk:4/45/2

**Enclosure** 

cc: Division File

Jim Janssen Gary King Mark Gurnick Bob O'Hara

Region

Copy to he michael D. Holfington
In . Paul D. Harper 20 April 1980,
And Bruce h. Kovsel, Liberty mutual APR 20 1990

20 April 1990 Jah

IL-000010



APR 1 3 1990

# OFFICE OF THE SECRETARY OF STATE SPRINGFIELD, ILLINOIS 62756

April 11, 1990

Environmental Protection Agency Attn: Mark V. Gurnik P. O. Box 19276 Springfield, IL 62794-9276

Dear Mr. Gurnik:

Please find enclosed the following material which will be published in the Illinois Register - Volume 14, Issue #16 (April 20, 1990):

Yours truly,

TOM MCDERMAND Acting Administrator

ADMINISTRATIVE CODE DIVISION 201 West Monroe Street

TM:ss enc.

#### **FNVIRONMENTAL PROTECTION AGENCY**

#### NOTICE OF ADOPTED AMENDMENTS

1) Heading of the Part: State Remedial Action Priorities List

1/

- 2) Code Citation: 35 Ill. Adm. Code 860
- 3) <u>Section Numbers</u>: <u>Adopted Action</u>:

860.210

Amended

- 4) Statutory Authority: Sections 4 and 22.2(d) of the Environmental Protection Act (III. Rev. Stat. 1987, ch. 111 1/2, pars. 1004 and 1022.2(d)).
- 5) Effective Date of Amendments: APR 9 1990
- 6) Does this rulemaking contain an automatic repeal date? No
- 7) Does this adopted amendment contain incorporations by reference? No
- 8) Date filed in Agency's Principal Office: March 27, 1990
- 9) Notice of Proposal Published in ILLINOIS REGISTER: October 20, 1989, 13 Ill. Reg. 16252
- 10) Has JCAR issued a Statement of Objection to these rules? No
- 11) Differences between proposal and final version:
  - A) Six sites originally proposed for inclusion in "Group 4" (A.A. Waste Oil, Rock Island; Champaign Muni, Urbana; Hannah Marine, Lemont; Inspiration Hines, Galena; John Deere Foundry, East Moline; and U.S. Scrap, Chicago) have been removed from the list. The spaces between the Title, Subtitle and Chapter Heading on the table of contents page were deleted. In the Authority Note on the table of contents page, an "s" was added to the first "Section" and the second "Section" was deleted, and "1983" was amended to read "1987". Within "Group 1," the spelling of "Steagal" was corrected to "Steagall," and within "Group 3" a hyphen was placed between "Smith" and "Douglas" and the spelling of "Douglas" was corrected to "Douglass".
- 12) Have all the changes agreed upon by the Agency and JCAR been made as indicated in the Agreement letter issued by JCAR? Yes
- 13) Will this amendment replace an emergency amendment currently in effect? No
- 14) Are there any amendments pending on this part? No.
- 15) <u>Summary and Purpose of Amendments</u>? These amendments update the State Remedial Action Priorities List to guide future Agency action.

#### **ENVIRONMENTAL PROTECTION AGENCY**

#### NOTICE OF ADOPTED AMENDMENTS

16) <u>Information and Questions Regarding this Adopted Rule Amendment shall be</u> Directed to:

Name:

Mark V. Gurnik

Address:

**Enforcement Programs Division** 

Illinois Environmental Protection Agency

2200 Churchill Road Post Office Box 19276

Springfield, Illinois 62794-9276

Telephone:

217/782-5544

The Full Text of the Adopted Rule Amendments Begin on the next page:

#### ENVIRONMENTAL PROTECTION AGENCY

#### NOTICE OF ADOPTED AMENDMENT(S)

TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE G: WASTE DISPOSAL CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY

#### PART 860 STATE REMEDIAL ACTION PRIORITIES LIST

#### SUBPART A: GENERAL

Section 860.100 860.110 860.120 860.130	Purpose Application Definitions Publication of	the <b>State</b> F	Remedial Action Pric	oriti <b>es</b> List
		SUBPART B:	LISTING OF SITES	
Section 860.200 860.210 860.220	State Remedial	Action Pric	orities List Remedial Action A	l Action Priorities List
•,		SUBPART C:	DELETION OF SITES	
Section 860.300	Basis for Dele	eting Sites	from the State Rem	edial Action Priorities
Environme		n Act (Ill. )	Rev. Stat. 1987, ch	s 4 and 22.2(d) of the . 111 1/2, pars. 1004 and
Ill. Red	g. 4226, effe	ctive Februa amended at	ry 26, 1986; amende 12 Ill. Reg. 16074,	24, 1985; amended at 10 d at 11 Ill. Reg. 12232, effective September 23, effective
SUBPART B: LISTING OF SITES				
Section 860.210 State Remedial Action Priorities List				
	GROUP 1			
Site Nam	e		City	County
Brockman	No. 1		Ottawa	LaSalle

#### ENVIRONMENTAL PROTECTION AGENCY

#### NOTICE OF ADOPTED AMENDMENT(S)

Quincy Municipal Landfill #2 & #3 Steagall Landfill			
Thomas 12th Street Landfill	Danville	Vermilion Adams	
Carpentersville Waste Site	Carpentersville	Peoria Kane	
Sherex Chemical	Mapleton		
H & L Landfill #1	Danville	Vermilion	
St. Louis Army Supply Center Sauget Sites	Granite City Cahokia/Sauget	Madison St. Clair	
Modern Plating	Freeport	Stephenson Madison	
Hopkins Chemical Co.	Atlanta	Logan	
Koppers Co.	Carbondale	Jackson	

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Frinks Industrial Waste

Stauffer Chemical

Moss American

Escast

# Pecatonica Winnebago Addison DuPage Chicago Heights Cook Sauget St. Clair

# GROUP 3

Site Name	City	County
Behn Drum	Marengo	McHenry
Bennitt Landfill	Rockdale	Will
C.L. Hale Septic Cleaning	Wilmington	Will
J.J. Schultz Containers	Lemont	Cook
Lanson Chemical Division	E. St. Louis	St. Clair
Morrison City Dump	Morrison	Whiteside
Sexton Hinsdale Landfill	Westchester	Cook
Smith - Douglass, Inc.	S. Streator	Livingston
South Central Terminal	Pana	Christian
Triem Steel & Processing	Chicago Heights	Cook

#### GROUP 4

Site Name	City	County	
FMC Corp. Ag Chemicals Hub Oil Company M.I.G. Investments	Wyoming Rochelle Belvidere	Stark Ogle Boone	

#### ENVIRONMENTAL PROTECTION AGENCY

#### NOTICE OF ADOPTED AMENDMENT(S)

Sand Park States Land Improvement #1	<u>Loves Park</u> Ottawa	Winnebago LaSalle
Stoney Park West	Palos Hills	<u>Cook</u>
Waukegan Muni #2	<u>Waukegan</u>	<u>Lake</u>
Custom Can Crusher	Deland	<u>Piatt</u>
REMEDI AT	ED RELEASES GROUP	
Site Name	City	County
m 1	- 1	Ob 1 - 1 - 1
Taylorville Landfill	Taylorville	Christian
U.S. Drum	Chicago	Cook
Firestone Tire	Quincy	Adams
(AGENCY NOTE: The placement of a s	ito in a nesticular	"Croun" in no was
- <del>"</del>		<del>-</del> .
represents the order in which the		
site in relation to other sites of		
undertaken at sites placed in the		up; nowever, rurther
remedial action may be necessary at	such sites.)	

Ill.

Reg.

(Source: Amended at 14

effective



#### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276

Thomas V. Skinner, Director

217-524-1660

March 10, 1999

Mr. Michael B. Dixon Eagle-Picher Industries, Inc. P.O. Box 779 Cincinnati, Ohio 45201

Re: L0858180001 JoDaviess
Inspiration Mines (Graham Mines)
ILD980905202
SF\HRS

Dear Mr. Dixon,

This correspondence is to inform you that the Illinois Environmental Protection Agency (IEPA) intends to conduct an Expanded Site Inspection(ESI) of the Inspiration Mines property located at 7147 Route 84 in North Galena, Illinois.

This activity will be undertaken by IEPA personnel authorized to conduct such investigations under the statutory authority of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980.

During the scheduled inspection, the field team may collect environmental samples of groundwater, surface water, soils, sediments and/or waste. You will be given the opportunity to split or duplicate samples if you desire.

The formal results of this investigation will be documented in an Expanded Site Inspection Report. A copy of which will be made available to you once finalized by USEPA.

The on site investigation is scheduled for the week of April 19, 1998. Mr. Brad Taylor of the Illinois Environmental Protection Agency will be contacting you in the near future to discuss program objectives, and to establish a specific date for the pre-sampling site reconnaissance.

MAR 1 5 1999



### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276
Thomas V. Skinner, Director

In the meantime, should you have any questions regarding this matter, please contact me.

Sincerely,

Brad Taylor

Federal Site Remediation Section

Division of Remediation Management

Bureau of Land

## GREG STAUDER & Co.

Consulting Engineers

201 Hill Street Galena, IL 61036 815-777-1588 Fax 815-777-4001

800-254-5700

June 30, 2005

Illinois Environmental Protection Agency Water Pollution Control Compliance Assurance Section #19 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276

> Permit No. ILR 001084 Annual Inspection Report

Dear Sir or Madam:

We have been authorized to act as agents for EaglePicher, Inc. for the purpose of filing the enclosed annual inspection report.

The report relates to a small area of the former Graham Mine site north of Galena that was reclaimed in 1994. Since 1994, EaglePicher has performed periodic maintenance to the cover vegetation as needed. The site requires no immediate remedial action.

If you have questions or wish clarification after reviewing the report, please contact me. Thank you.

Sincerely,

Greg Stauder

Cc: Mi, Paul Harper, EaglePicher.

## GREG STAUDER & CO.

Consulting Engineers

June 28, 2004

Mr. Paul D. Harper EaglePicher, Inc. 3402 E. University Drive Phoenix, AZ 85034 201 Hill Street 815-777-1588 Galena, IL 61036 Fax 815-777-4001 800-254-5700

Graham Mine Annual Inspection Galena, IL

Dear Mr. Harper:

This letterform report consists of this one-page narrative followed by:

- 1. A site plan drawing showing this year's photo locations, page 2;
- 2. Two pages of photos taken at the site during this year's inspection, page 3-4;
- 3. One completed ILR000184 inspection comments form, page 5;
- 4. An original IEPA Facility Inspection Report for review and signature (separate from report).

There is no need for immediate remedial action at this time. The vegetative cover consists of a mixture of  $12^{\circ}-15^{\circ}$  tall grasses with some volunteer broadleaf weeds. The cover in general appears improved since last year and there are no signs of erosion.

Surface mold, indicative of a low soil pH, continues to exist on a few isolated bare areas. Precipitation has been below normal this year and this seems to have reduced the amount of mold from previous years. Traces of agricultural lime applied to the site in 2002 are no longer evident although residual traces of the 2003 manure application were found. Vegetation at the site seems to be making a slow year-to-year improvement as bare areas are slowly grassing in.

Erosion has not been a problem in the past few years and the upslope vegetation on the former storage slab area seems to be becoming denser. There are some small bare areas visible in the photographs but none show signs of erosion. An increasing number of volunteer shrubs are evident on the site, particularly in the former enriched ore storage slab area. The larger trees seen in photographs existed along the edges of the storage slab before the slab was removed.

Another lime application above the silt fence sometime this fall would probably be of benefit to raise soil pH. It's apparent that lime applications in the past have had a favorable effect on reducing the size of the bare areas. As I mentioned before, soil in the area has high zinc content and in an acidic environment without the lime, the zinc tends to chemically bond with fertilizer nutrients making them unavailable to plants.

If you have questions or wish clarification, please contact me. Thank you.

Sincerely,

Greg Stauder



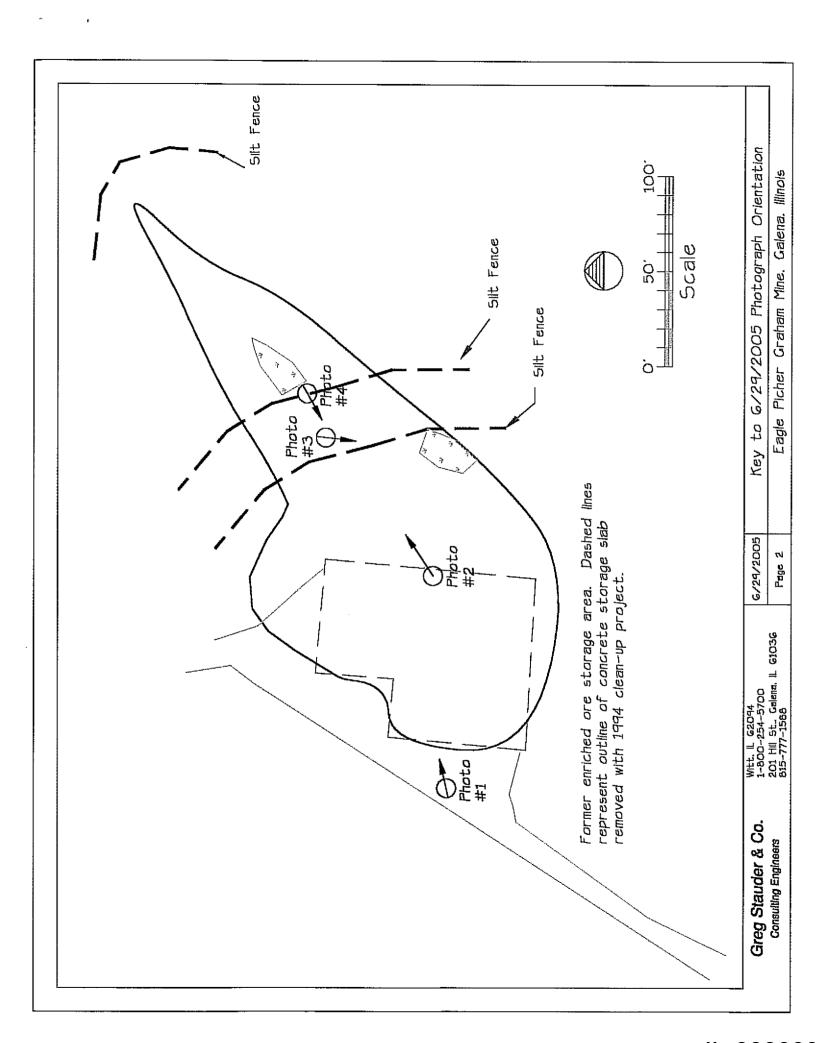


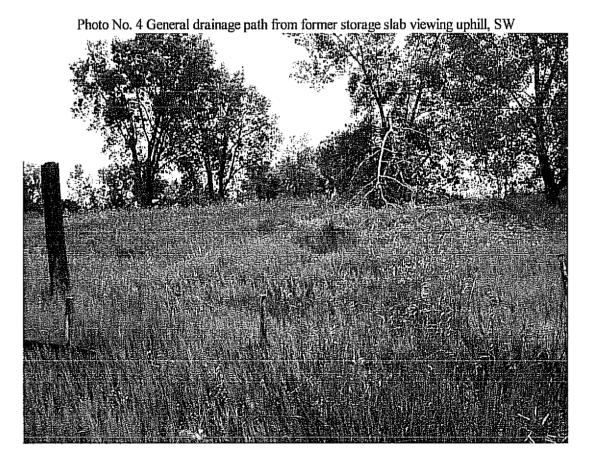


Photo No. 1 Site viewed NE. Former access roadbed is to extreme left of photo.





Photo No. 3 Area immediately below silt fence viewing S



#### SEMI-ANNUAL INSPECTION REPORT

## GRAHAM MINE SITE ILRO01084

Date 6/28/2005

Concrete Storage Slab Area	
Condition of Cover	Generally good to excellent; few small bare areas; tall mixed grasses ranging from one to four feet in height. Increasing number of volunteer shrubs and cedar trees. Recent wind damage to one of the larger trees on the former north slab boundary.
Corrective Measures	None. Monitor volunteer shrub growth in the future.
Vegatative Cover	
Condition of Vegetation	Generally fair to good; mixed grasses and weeds; few localized bare areas
Evidence of Significant Erosion	None. Some small rivulets consistent with previous inspections. Silt fences slowly deteriorating from weather but still functioning. Need for silt fence declining as grasses propagate.
Corrective Measures	Site below the storage slab area received an application of ag lime to raise soil pH in 2002 and animal manure in July 2003 to provide plant nutrients. Ag lime should probably be reapplied 2005 or 2006.
Receiving Stream	
Condition	Vegetated, no erosion evident.
Corrective Measures	None required
Inspection Conducted by:	Greg Stauder, IL Reg. P.E. No. 062-037243

Company

Greg Stauder & Co., 201 Hill Street, Galena, IL 61036

#### ILLINOIS ENVIRONMENTAL PROTECTION AGENCY ANNUAL FACILITY INSPECTION REPORT NPDES PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL SITE ACTIVITIES

Complete each section of this report. Place a NA in sections that do not apply to your operation.							
REPORT PERIOD: FROM	July 2004	το Ουι	-Y ;	2005			
OWNER/OPERATOR INFORMATION	OWNER/OPERATOR INFORMATION: (As it appears on the current permit)						
NAME: ENGLE PICHER		TELEPHONE NUMB			9600		
MAILING ADDRESS: 3402	E. Univer	251TY DRI	VE				
CITY: PHOENIX				STATE: AZ	zip: 85034		
CONTACT PERSON: (Person responsible for Annual Rep	ori) PAUL D. 1	+AIZPER					
FACILITY/SITE INFORMATION: (A	it appears on the curren	t permit)		<u>,</u>			
FACILITY NAME: GRANGE			<u> </u>	MIT NUMBER: 1 201084	ILR		
FACILITY LOCATION: SE	- SECTION 2	25, T29K	1, 1	2117			
CITY: GALENA				STATE: [ [_	ZIP:61036		
COUNTY: JODANIES	5	PRIMARY SIC COD	E:				
RECEIVING WATER INFORMATIO	N						
STORM SEWER: OWNE	RNAME: N/S						
WATERS OF THE STATE:	WATERS OF THE STATE: CLOSEST RECEIVING WATERS: MILBRIG CREEK				<u>r_</u>		
ADDITIONAL INFORMATION			_				
Has this facility received an NPDES Permit under a different own/operator name in the past? If so, list last name permit was issued to:							
Attach information on any activity that has occurred at this facility during the report period that may have resulted in pollutants discharged to storm water runoff (e.g. Spills).							
Attach information on any changes to the facility or the activity occurring at the facility that resulted in significant changes to the SWPPP.							
SIGNATURE: DATE: 6/30/2005							

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL
COMPLIANCE ASSURANCE SECTION #19
1021 NORTH GRAND AVENUE EAST
POST OFFICE BOX 19276
SPRINGFIELD, ILLINOIS 62794-9276

Information required by this form must be provided to comply with 415 ILCS 5/39 (1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center,

IL 532 2585 WPC 691 MAY-98